

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION

TRANSCRIPT OF JURY TRIAL  
BEFORE THE HONORABLE RODNEY GILSTRAP  
UNITED STATES DISTRICT COURT

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1 P R O C E E D I N G S

2 (Jury out.)

3 COURT SECURITY OFFICER: All rise.

4 THE COURT: Be seated, please.

5 All right. Do the parties have a rendition from  
6 the list of pre-admitted exhibits to read into the record  
7 used during yesterday's portion of the trial?

8 MR. BRYAN ANDERSON: We do, your Honor.

9 THE COURT: Go ahead, Mr. Anderson.

10 MR. BRYAN ANDERSON: First, we identified an error  
11 in yesterday's recitation. Instead of AX-1117C, it should  
12 have been AX-1C -- start over again.

13 AX-81C is the correct number, not AX-111C.

14 THE COURT: All right. Do you agree with that,  
15 Ms. Engelmann?

16 MS. ENGELMANN: Good morning, Your Honor. I think  
17 it's AX-817C.

18 MR. BRYAN ANDERSON: 817C, correct.

19 THE COURT: All right. So 817C, right?

20 MR. BRYAN ANDERSON: Correct.

21 THE COURT: Okay. What else?

22 MR. BRYAN ANDERSON: AX-135, AX-147, AX-158,  
23 AX-198C, AX-199C, AX-785C, AX-859C, AX-1174, which was a --  
24 and then AX-1178C. 1174 was the physical exhibit.

25 THE COURT: All right. Ms. Engelmann, any

1 objections from the Plaintiff?

2 MS. ENGELMANN: No objections, Your Honor. And  
3 Plaintiff has no exhibits to enter.

4 THE COURT: All right. Let's see. We concluded  
5 with witnesses by deposition yesterday.

6 Defendant, who will your next witness be? Is that  
7 Dr. Kelly?

8 MR. DAVE ANDERSON: Yes, your Honor.

9 THE COURT: All right. I think my clerks have  
10 mentioned to you, but the demonstrative and other disputes  
11 that developed overnight, I'll deal with, counsel, during  
12 our morning recess. I don't think we'll get to any of those  
13 before then.

14 All right. Anything further before we bring in  
15 the jury?

16 MR. DAVE ANDERSON: Nothing here, Your Honor.

17 MR. BAXTER: Nothing here, Your Honor.

18 THE COURT: All right. Let's bring in the jury,  
19 Mr. Nance.

20 COURT SECURITY OFFICER: All rise for the jury.

21 (Jury in.)

22 THE COURT: Welcome back, ladies and gentlemen.  
23 Please be seated.

24 All right. Defendant, call your next witness.

25 MR. DAVE ANDERSON: Thank you, Your Honor.

1 Apple calls Dr. John Kelly.

2 THE COURT: All right. If you'll come forward,  
3 Dr. Kelly.

4 Have you previously been sworn, Dr. Kelly?

5 THE WITNESS: Yes, Your Honor.

6 THE COURT: If you'll please come around and have  
7 a seat at the witness stand then.

8 All right. Counsel, you may proceed when you are  
9 ready.

10 JOHN KELLY, Ph.D., DEFENDANT'S WITNESS, PREVIOUSLY SWORN  
11 DIRECT EXAMINATION

12 BY MR. DAVE ANDERSON:

13 Q Dr. Kelly, would you please state your full name and  
14 current occupation for the record?

15 A Yes. My name is John Kelly, and I am the president of  
16 the Kelly Technology Group.

17 Q What does the Kelly Technology Group do?

18 A We are a high technology consulting company, and we do  
19 intellectual property consulting as well.

20 Q Would you please summarize for the jury your  
21 educational background, sir?

22 A Yes, certainly.

23 I have a bachelor's and master's degrees in mathematics  
24 from the University of Cambridge in England, and I have a  
25 Ph.D. in computer science from UCLA.

1 Q Where were you born?

2 A I was born in London, in England.

3 Q When did you come to the United States?

4 A In 1975, as a graduate student.

5 Q Did you become a U.S. citizen?

6 A I did, in 1984.

7 Q Have you ever taught, sir?

8 A I have. I taught for -- as a professor, I taught for  
9 over 15 years, first in the computer science department at  
10 UCLA and then in the electrical and computer engineering  
11 department of the University of California Santa Barbara.

12 Q Did you obtain tenure as a professor?

13 A I did, yes.

14 Q Can you tell us, Dr. Kelly, about some of the work you  
15 did consulting in the field of computer science?

16 A Well, I've listed some of them here. I have consulted  
17 for a number of government agencies: NASA, the FAA, the  
18 Department of Defense, Department of Energy, Los Alamos  
19 National Labs, and NATO as examples.

20 And I've also done consulting for commercial  
21 organizations like Citibank.

22 Q By way of example, sir, would you tell us a bit more  
23 about your work for Citibank?

24 A Sure.

25 The -- the problem that Citibank was having at the time

1 was -- and this is in the early '80s -- the ATM machines  
2 where you go up and withdraw cash, you could only do that at  
3 your own bank, at the branch of your own bank.

4 So, if you had an account in downtown Marshall, you  
5 could withdraw cash there, but you couldn't withdraw cash  
6 from the same -- from Citibank, say, in Tyler.

7 And -- and the objective of the effort that I worked on  
8 was so that you could withdraw money from any one of the  
9 locations that Citibank had at the time, and they were --  
10 they were locations all over the country.

11 So the communication protocols and the security  
12 protocols to allow that to happen is what I was working on.

13 Q Continuing, sir, on with your background and  
14 experience, have you conducted any research or editorial  
15 work related to computer science?

16 A Yes, I have. As an academic, of course, I published a  
17 number of papers. And I also peer reviewed. I was a  
18 reviewer for other people's work as well, for a number of  
19 the journals that we have in computer science and  
20 engineering.

21 Q In summary, as it relates to your testimony here this  
22 morning in this case, what is your area of expertise?

23 A It is computer science and engineering and particularly  
24 with DRM-type technologies.

25 Q Have you conducted research in what is sometimes

1 referred to as highly dependable systems?

2 A Yes, I have. That was an important part of my  
3 research.

4 Q Did you ever teach encryption and security?

5 A I did, yes. That was part of the work that I did both  
6 at UCLA in Los Angeles and UC Santa Barbara.

7 Q Are you being compensated as an expert witness for the  
8 time spent working on this case?

9 A Yes, I am.

10 Q Is that through your consulting firm, the consulting  
11 firm that you mentioned, Kelly Technology Group?

12 A Yes, it is. But the -- our clients pay Kelly  
13 Technology Group, and of course, I earn a salary and bonus  
14 from Kelly Technology Group.

15 Q Over, say, the last ten years, how many employees on  
16 average has Kelly Technology Group had?

17 A I'd say, on average, it's probably around a dozen.  
18 It's sometimes more, sometimes less.

19 Q What is your hourly rate?

20 A \$950 an hour.

21 Q Does your compensation depend in any way on the outcome  
22 of the case?

23 A No, it does not.

24 Q Dr. Kelly, are you here today to offer your opinion  
25 about ContentGuard's patent infringement allegations against



1 Apple?

2 A Yes, sir, I am.

3 Q Now, in forming your opinions, what materials did you  
4 consider?

5 A A number of different materials. They are listed on  
6 this slide. There were the -- the patents-in-suit, and, of  
7 course, very important, the Court's claim construction that  
8 defined some of the terms in -- in the claims of the  
9 patents-in-suit. And then there are a number of  
10 Apple-related things.

11 First of all, I looked at the accused products  
12 themselves. I looked at Apple's technical documents and  
13 Apple's source code. And I also examined the witness  
14 testimony. And that would be in depositions before the  
15 suit, and then, of course, there has been trial testimony  
16 over the last week.

17 I talked to Apple's engineers. I talked to a number of  
18 the engineers who actually worked on -- on the systems. And  
19 then I also examined ContentGuard's expert reports to  
20 understand what -- what -- how -- how they believed the  
21 accused products were infringed.

22 Q You mentioned that you have witnessed some of the trial  
23 testimony. Have you been attending the trial here as  
24 allowed by the Court?

25 A I have been, yes. I haven't been here for every minute

1 of the testimony, but I've been here for -- for, I think,  
2 all the testimony that's relevant to -- to my opinions.

3 Q After reviewing these materials in the manner that  
4 you've described, Dr. Kelly, what is the ultimate opinion  
5 that you have formed?

6 A I don't believe that the Apple accused products  
7 infringe any of the alleged claims -- any of the claims that  
8 are -- that are asserted in this case.

9 Q I want to ask you next, sir, about this analysis of  
10 comparing a product to a patent for purposes of assessing  
11 infringement as you've just described. Would you expand  
12 upon your testimony in that regard, please, sir?

13 A Certainly. I have a slide here which will help to  
14 understand.

15 The -- the point is that a claim in a patent has a  
16 number of elements in it, and all claim elements must be  
17 present in the accused products for infringement to occur.  
18 Not most, but all.

19 And on the left-hand side here, I've shown a U.S.  
20 patent that has a claim, and this claim is for a soccer  
21 ball. And it has in this claim -- it's called Claim 1. It  
22 has four elements. It must be made of leather; it must be  
23 stitched together; it must be filled with compressed air;  
24 and it must be round.

25 Q How about on the right-hand side? What is described

1 there on the right-hand side of your slide as the accused  
2 product?

3 A Well, this is a football, and now the question is:  
4 Does the football infringe Claim 1, which is directed to a  
5 soccer ball? And so what we do to determine that is look at  
6 each one of the elements.

7 Is it made of leather? Yes, it is.

8 Is it stitched together? Yes, it is.

9 Is it filled with compressed air? Yes, it is.

10 But is it round? No, it's not round. It's oblong.

11 So there is one claim element that doesn't -- that is  
12 not met by the accused product, and that is all it takes for  
13 an accused product to not infringe the claim.

14 So here we have one missing element, one element that  
15 doesn't match. So the football does not infringe that  
16 claim.

17 Q If someone were to suggest in this trial that some  
18 elements are small elements or less significant elements,  
19 would that be a correct assessment in your understanding,  
20 sir?

21 A No. No. Every claim is important. And for  
22 infringement to occur, every claim has to be -- every claim  
23 element has to be met.

24 Q Starting with the left-hand side of this slide, would  
25 you describe for the jury, Dr. Kelly, your understanding of

1 ContentGuard's trusted system approach?

2 A Yes.

3 At a high level, ContentGuard's trusted system approach  
4 relies on a repository where content is stored and then  
5 usage rights that are attached or treated as attached to  
6 that content.

7 Q And now on the right-hand side, would you describe at a  
8 high level Apple's secure container approach?

9 A Certainly.

10 There are -- there are three components. We'll talk  
11 about those components a little bit more in -- in detail  
12 later, I think. But the -- the point is that there is no  
13 repository. There is not -- there are no usage rights  
14 attached or treated as attached.

15 Instead, there -- there are secure containers that  
16 contain the content, and there are various keys that are  
17 used that -- the content is secured by encryption, and there  
18 are various keys that are used to decrypt that content.

19 Q In light of the differences between these approaches as  
20 you've described it, sir, is it your opinion that  
21 ContentGuard's infringement case fails for one element or --  
22 or more than -- than one element of the asserted claims?

23 A Well, there's more than one element. One element, as  
24 I -- as I just said, would be enough. But, in fact, there  
25 are -- there's more than one element, and those are separate

1 and independent reasons why the claims are not infringed.

2 Q Is this distinction between trusted systems and secure  
3 containers a distinction that is drawn in the patents?

4 A Yes, it is.

5 Q I've put up here in front of you, Dr. Kelly, the Nguyen  
6 '053 patent. Is this the patent that you had in mind when  
7 you mentioned the distinction in -- in the patents being  
8 drawn as described here?

9 A Yes, it is.

10 Q Now, what I'd like to do, Mr. Simmons, if you would,  
11 please, would you pull up the -- the portion of -- of the  
12 actual patent that includes this language but includes all  
13 of the language that's set forth here in the slide?

14 So this is AX-0008.

15 MR. DAVE ANDERSON: Okay. Great. Thank you.

16 Q (By Mr. Dave Anderson) So, Dr. Kelly, I've put up in  
17 front of you here the -- the two paragraphs from which the  
18 excerpts were drawn in -- in the preceding slide.

19 Do you see them there?

20 A I do.

21 Q So what I'd like to do, in light of the -- the  
22 questioning yesterday, is ask you to take us through this --  
23 this passage sort of line by line and ask you to describe  
24 these two basic DRM schemes as -- as set forth in the Nguyen  
25 0 -- 08 -- AX-008, the Nguyen '053 patent, okay?

1 A Yes.

2 Q All right. So just starting at the top here: Two  
3 basic DRM schemes have been employed: Secure containers and  
4 trusted systems.

5 What -- what -- what is it that -- that you take from  
6 the opening line of this passage?

7 A Well, that there -- there are two approaches, and at  
8 their -- at their basic levels, we're going to -- to discuss  
9 them further in these paragraphs.

10 Q And how is it that in the -- in the next couple of  
11 sentences, how is it that a secure container is described by  
12 the -- the ContentGuard patent itself?

13 A Well, it -- it is explaining that it uses encryption.  
14 It's simply an encrypted document, it -- it says there. And  
15 then it explains that the -- in -- in the next few lines  
16 that the -- the encrypted document is kept encrypted until a  
17 certain set of authorization conditions are met and some  
18 copyright terms are honored.

19 So that's the next step.

20 Q And is that consistent with your study and your review  
21 of the Apple system?

22 A Yes, it is.

23 Q Going further down here, now, do you see there the  
24 reference to the document being released to the user in  
25 clear form?

1 A I do.

2 Q Tell us more, Dr. Kelly, about this reference to clear  
3 form. What does it mean for a document to be clear as set  
4 forth here in -- in the ContentGuard patent?

5 A Well, the -- the document is encrypted, and so that is  
6 not clear form. You can't actually read the document. You  
7 can't play the movie and so on. But then when it's  
8 decrypted, it's in a form where it can be played or it can  
9 be read.

10 And so it basically means that -- that -- that some or  
11 all of this content has been decrypted and those portions --  
12 or maybe the whole thing is - is now -- is now in -- in  
13 plain view, if you like. It's also called "plain text."

14 Q Is this -- again, is this consistent -- this  
15 description in the ContentGuard patent consistent with your  
16 understanding of the Apple system?

17 A Yes, it is.

18 Q Were you here yesterday to hear the testimony of  
19 Mr. Fasoli?

20 A I was.

21 Q Did you hear Mr. Fasoli describe some of the attacks --  
22 hacker attacks that Apple has suffered over the years?

23 A Yes, I did.

24 Q And could you give us your views, Dr. Kelly, on whether  
25 the -- the existence of those hacker attacks, the periodic

1 success of those hacker attacks, bears on this question of  
2 secure container versus trusted system?

3 A Yes, it does. The kind of attacks that have been --  
4 have been put on the Apple FairPlay system are the types of  
5 attacks that you would expect on a secure container.  
6 They're going after the keys. They're going after the  
7 information when it's in clear form.

8 So that's either get the keys and then -- and then  
9 decrypt the content and put it in clear form, or if you  
10 can't get the keys, get it -- get access to the work, to the  
11 digital content when it isn't clear, when it's being  
12 presented on the screen, for example.

13 Q Directing your attention, then, to the sentence after  
14 the examples of commercial products, the sentence that  
15 begins "clearly," I want to ask you, sir, about the  
16 description here that says that "secure container provides a  
17 solution to protecting the document during delivery over  
18 insecure channels."

19 What is -- what is meant here by the phrase "insecure  
20 channels"?

21 A That would be something like -- something that doesn't  
22 have security on the channel itself. So one example of that  
23 we've heard about is standard HTTP connection, a normal  
24 connection where you don't actually try to encrypt the  
25 channel, for example.



1 Q In the Apple system, how is content delivered: Over a  
2 secure or an insecure channel?

3 A It's over an insecure channel.

4 Q And then directing your attention to the second part of  
5 that same sentence, where we again see this reference to a  
6 clear document, does the -- does the patent seem to  
7 contemplate that the entirety of the document would be --  
8 would be in the clear --

9 MR. DAVE ANDERSON: Withdrawn. Sorry.

10 Q (By Mr. Dave Anderson) I want to ask you first about  
11 this "legitimate users" language up above. Do you see the  
12 "legitimate users" language?

13 A I do.

14 Q Okay. Is it possible for a legitimate user to be the  
15 attacker as set forth in this patent?

16 A Well, indeed. That's one of the concerns, that -- that  
17 the person who has actually paid for the rights to view the  
18 movie or look at the book is the attacker.

19 MR. DAVE ANDERSON: Mr. Simmons, could you, at the  
20 top here, call out for us the term "basic," "basic DRM"?  
21 Just if you could highlight the -- yes, that's right. Thank  
22 you, sir.

23 Q (By Mr. Dave Anderson) In 2004, when this document was  
24 being written or filed with the Patent Office, is this a  
25 description of a basic secure container approach as you

1 understand it, sir?

2 A I believe it is.

3 Q Now, has Apple over the years taken steps to advance  
4 FairPlay with the engineering work that Apple has done  
5 beyond the basics of a secure container?

6 A Most definitely they have.

7 Q And just in summary form, what are the couple of ways  
8 in which Apple has taken steps to advance the basic secure  
9 container system beyond the basics as set forth here in  
10 2004?

11 A Well, there are -- there are two principal ways. One  
12 way is to limit the amount of time and the amount of the --  
13 of the content that is in clear form at any instant.

14 And we heard Mr. Fasoli yesterday talk about just  
15 decrypting a few frames of a movie or a few pages of a book.  
16 So that portion is in clear form, but you're trying to limit  
17 so that -- so that you only -- you only have as much as you  
18 actually needed at that time.

19 And then the -- the second way is, significant  
20 vulnerability is, if you can get the keys, then you can  
21 decrypt whatever you like. And Apple has employed  
22 Cloakware -- we also heard about that yesterday -- to hide  
23 those keys and to make it very difficult to figure out where  
24 the keys are and how to use them.

25 Q Are those enhancements to the basic secure container

1 approach as you've described them a complete solution to the  
2 vulnerabilities of the secure container approach?

3 A Well, no, they're not -- certainly not a hundred  
4 percent. They are -- it's extraordinarily difficult and  
5 maybe impossible to prevent all attacks.

6 Q So let's look now, sir, at the next paragraph, if you  
7 would, please, the trusted system approach as set forth here  
8 in the Nguyen '053 patent.

9 Is the -- is the first sentence consistent with your  
10 understanding of how a trusted system approach would try to  
11 protect content using DRM?

12 A Yes. What it says is: The entire system is  
13 responsible for preventing unauthorized use and distribution  
14 of the document.

15 And so that's all the pieces that get involved have  
16 to -- have to take on this responsibility.

17 Q Now, when we -- when you analyzed this case in the  
18 manner that you've described, sir, did you apply the  
19 description that appears here, or did you apply the Court's  
20 claim construction of the -- of the patents?

21 A Oh, it's critical for my analysis to -- to look at what  
22 the Court told us, what the Court define -- how the Court  
23 defines these terms, and that's what I used.

24 Q All right. So continuing on, then, with the patent  
25 description of a trusted system approach in general, what

1 does the next sentence tell us about a trusted system  
2 approach?

3 A Well, it says here: Building a trusted system usually  
4 entails introducing new hardware, such as a secure  
5 processor, secure storage, and secure rendering devices.

6 So you cannot use a standard computer for a purpose  
7 like this. It needs -- it needs new hardware, new  
8 particular hardware.

9 Q Now, is the -- is the requirement of new hardware set  
10 forth in the Judge's -- Judge Gilstrap's claim construction?

11 A No.

12 Q Is the -- is the requirement of new hardware, as set  
13 forth in this patent, is that consistent or inconsistent  
14 with the Apple system?

15 A It's inconsistent. Apple -- Apple's system has been  
16 designed to run on a lot of standard components.

17 Q The next sentence here says that there is also, in the  
18 trusted system approach, a requirement that: All software  
19 applications that run on trusted systems be certified to be  
20 trusted.

21 Do you see that there?

22 A I do.

23 Q How does that relate to the -- the understanding you  
24 have of a trusted system approach?

25 A Well, this means that one of the -- one of the concerns

1 would be that a software application could get into the  
2 trusted system and -- and cause damage, cause havoc, or have  
3 bugs in it and the like.

4 And the intent here is to make sure that you know that  
5 the software applications that you're about to put into this  
6 trusted system are -- are going to do what they're supposed  
7 to do.

8 Q As construed by the Court, does this sentence relate to  
9 the claim element of behavioral integrity?

10 A Yes, it does.

11 Q Would you now, Dr. Kelly, direct your attention to the  
12 next sentence. And do you see there the description of  
13 current market trends as set forth in 2004 towards open and  
14 untrusted systems?

15 Do you see that?

16 A I do.

17 Q What is -- what is meant here in the ContentGuard  
18 patent by "open and untrusted systems," as you understand  
19 it?

20 A Well, it says right here: Such as PCs and  
21 workstations, using browsers to access the web, will be the  
22 dominant systems used to access digital works.

23 Q Further down in that next sentence, is there an  
24 additional description, as you -- as you just set forth, of  
25 the kinds of PCs and workstations that are going to be

1 popular, the kinds of rendering applications that will be  
2 popular?

3 A Yes. Yes. I mean, as examples of the PCs and  
4 workstations, that would be the hardware. And it then says  
5 operating systems. Windows -- Windows runs on the -- on the  
6 PC, and then Linux -- Linux also runs on PCs, and then UNIX,  
7 which runs on workstations.

8 Q When we hear references in this trial to Windows PCs,  
9 is that, in your understanding, a type of PC that's  
10 described here?

11 A Yes, it is, clearly. It says "such as PCs," and -- and  
12 it's got the operating system Windows, yes.

13 Q When we hear references in the trial to Mac PCs or Mac  
14 computers, is that also, in your understanding, a type of  
15 PC?

16 A Yes, it is. I mean, it's a type of personal computer.  
17 I usually think of a Windows PC as one and a -- and a Mac  
18 personal computer as -- as another, but they're both --  
19 they're both personal computers.

20 THE COURT: Could you speak up a little bit,  
21 please, Dr. Kelly?

22 THE WITNESS: Certainly, Your Honor.

23 THE COURT: Thank you.

24 Go ahead, Counsel.

25 MR. DAVE ANDERSON: Thank you, Your Honor.

1 Q (By Mr. Dave Anderson) Are both of those -- are both of  
2 those types of personal computers accused devices in this  
3 trial?

4 A Yes, they are.

5 Q I want to ask you now -- and I think we're almost done  
6 with this language, Dr. Kelly -- about the description at  
7 the bottom here that these types of devices, including the  
8 Windows PCs and the Mac personal computers, are not trusted  
9 systems and cannot be made trusted without significantly  
10 altering their architectures.

11 What is your understanding of the meaning of that  
12 phrase?

13 A The -- the -- the basic problem with an open system is  
14 that you can install lots of different types of software.  
15 You can install lots of different types of hardware  
16 components.

17 And that -- it makes it very difficult to trust the  
18 system. And so in order to make that a trusted system, as  
19 it says here, you would have to significantly alter the  
20 architecture.

21 Q As described here in 2004 and anticipating current  
22 market trends, as the -- the patent itself describes, could  
23 you now tell us, Dr. Kelly, how has it actually played out  
24 since 2004? Have there been current market trends towards  
25 these open and untrusted systems?

1 A Oh, indeed. Indeed. I mean, that -- that -- this is a  
2 good prediction of where things have -- have actually gone.

3 Q When a user uses the iTunes -- the Apple iTunes  
4 application, can the user use that application on a Windows  
5 PC?

6 A Yes, they can.

7 Q Can the user use that application on a Mac personal  
8 computer?

9 A Yes, they can.

10 Q Before using those -- those applications on the Windows  
11 PC or the Mac personal computer, is there a requirement, in  
12 your understanding of the Apple system, that the user first  
13 significantly alter the architectures of these devices?

14 A No, not at all.

15 Q Okay.

16 MR. DAVE ANDERSON: Thank you, Mr. Simmons. We  
17 can take that down.

18 Q (By Mr. Dave Anderson) Are you familiar with this  
19 document, Self-Protecting Documents, AX-145, from authors  
20 Ram and others as set forth here?

21 A Yes, I am.

22 Q Now, first of all, where -- where is it that these  
23 authors were working at the time that this document was  
24 prepared?

25 A Well, as it says, Xerox Corporation.



1 Q And do you have -- have you heard testimony in this  
2 trial that these are folks who worked with Dr. Stefik  
3 himself?

4 A Yes. He was also at Xerox Corporation.

5 Q Does this document characterize the two approaches, the  
6 secure container approach and the trusted system approach?

7 A Yes, it does. And as -- as I've shown here in this  
8 highlight, the secure container approach is -- is one and it  
9 gives some references. And the trusted system approach is  
10 another, and it also gives some references.

11 Q In describing the trusted system approach here in the  
12 Self-Protecting Documents article, do the authors at Xerox  
13 give examples of trusted system approaches?

14 A Yes, they do. Stefik, Tygar, Yee, White -- and White.  
15 So they give -- they give three examples.

16 Q And do you have an understanding as to whether  
17 Dr. White will be a witness later today at this trial?

18 A Yes. I believe he will.

19 Q Staying with the same document, are you familiar with  
20 the criticism by these Xerox authors of the concept of  
21 trusted systems?

22 A I am, yes.

23 Q Let me ask you about Item No. 2. They are difficult  
24 and maybe impossible to build.

25 What is it that is being described here? What is your

1 understanding of the meaning of this criticism?

2 A Well, first of all, we're talking about trusted systems  
3 here. And -- and as we saw a little bit earlier, they may  
4 require special hardware, special components, and a  
5 significant alteration to the architecture, to how the  
6 pieces are put together.

7 And this is just recognizing this. They are difficult  
8 and may be impossible to build an actual trusted system.

9 Q Directing your attention to Item 5: They are difficult  
10 to maintain.

11 Is that also consistent with your understanding of one  
12 of the problems with a trusted system?

13 A Yes, it is.

14 And -- and as it says here, given the whole range of  
15 different platforms, such as PCs with different operating  
16 systems, Macs -- excuse me -- and a variety of UNIX  
17 machines, building trusted systems requires a complete  
18 integration with the low-level operating system details.  
19 And -- and that's difficult -- very difficult to do.

20 But it goes on to say: Since operating systems are  
21 constantly evolving, trusted systems have to keep pace with  
22 every new release of individual operating systems.

23 So you've got multiple operating systems, and you've  
24 got multiple releases. And you're having to go down into  
25 the low-level details of those operating systems in order to

1 try to maintain -- assuming that you could build this in the  
2 first place.

3 Q Finally, Item 6: They are difficult to gain market  
4 acceptance.

5 Do you see that there?

6 A Yes, I do.

7 Q Now, what is your understanding of the extent to which  
8 the Apple system has gained market acceptance?

9 A Oh, it's -- it's been widely popular.

10 Q Is the Criticism 6 here that trusted systems are  
11 difficult to gain market acceptance, does that suggest to  
12 you one way or the other as to whether Apple is a trusted  
13 system or a secure container?

14 A Well, certainly Apple's systems have been widely  
15 popular, and so -- I mean, iTunes is hugely popular, and  
16 that certainly is consistent with No. 6.

17 Q I want to direct your attention now, Dr. Kelly, to  
18 AX-0004. This is the Stefik '072 patent. And in  
19 particular, the description here, as highlighted -- the --  
20 the patent uses this phrase, "the content Genie is out of  
21 the bottle."

22 Could you explain to the jury what you understand  
23 this -- this metaphor, as it says -- this metaphor that the  
24 content Genie is out of the bottle?

25 A Sure. The -- with a secure container approach, the

1 digital work is encrypted and control over that is -- is  
2 imposed by the key.

3 But once you use the key to decrypt content, then that  
4 content -- at least the portion that's decrypted, no longer  
5 has control. You no longer have control over that, the  
6 content provided. And this was a significant weakness with  
7 the -- with the early basic secure container approach.

8 Q Are those weaknesses of the early basic secure  
9 container approach the -- the weaknesses that were addressed  
10 by those elements that you described earlier, the Cloakware  
11 and the encrypting, just a piece of it at a time?

12 A Decrypting a piece at a time, yes, correct.

13 Q Thank you for the correction, sir.

14 Okay. I put in front of you, Dr. Kelly, the five  
15 claims of the five patents here in the lawsuit.

16 Do you see that there?

17 A I do.

18 Q Now, we see at the top the light blue outlining. Would  
19 you tell us what it is that is highlighted there in light  
20 blue?

21 A This is the claim requirement for a repository. Every  
22 one of these claims has -- calls out the requirement for a  
23 repository.

24 Q Now, I see that in the language "repository" is  
25 highlighted, and I also see in the same blue color the

1 language "trusted" is highlighted. Could you tell us why it  
2 is that those are both highlighted in the same color as  
3 "repository"?

4 A The -- the Court has given us a definition for  
5 "repository" and a definition for "trusted." And those  
6 definitions are essentially parallel, and so they both  
7 impose the requirement of the repository.

8 Q Either "repository" and/or "trusted," do those terms  
9 appear in every one of the asserted claims?

10 A Yes, they do. And there's -- there's at least one blue  
11 highlight in every one of these claims.

12 Q If the jury determines that the Apple system does not  
13 satisfy all of the elements of a repository, what is the  
14 result in terms of the infringement analysis as to all five  
15 of these claims?

16 A Well, since it is a required element of every one of  
17 the claims, if there is no repository, then there can be no  
18 infringement of any of these claims.

19 Q Let me ask you now, Dr. Kelly, about the yellow  
20 highlighting, "usage rights." Like with "repository," is  
21 that a phrase that appears in all of the asserted claims?

22 A Yes. You can see I've highlighted in yellow every one  
23 of these claims.

24 Q Now, if the jury were to conclude that usage rights, as  
25 defined by Judge Gilstrap, are not found on the Apple

1 system, what is the result in terms of this infringement  
2 analysis?

3 A Well, that would be another separate reason why every  
4 one of these claims would be not infringed. There is at  
5 least one element in every one of these claims that requires  
6 usage rights, as defined by the Court. And if the usage  
7 rights are not present, then every one of these claims would  
8 be not infringed.

9 Q You've mentioned that the Court has defined  
10 "repository," that you're applying that particular  
11 definition. But let me ask you this: Is "repository" also  
12 a term that appears just in general industry jargon?

13 A Yes, it is.

14 Q And does -- does the use of the term "repository" in --  
15 in general usage in the computer science industry -- what  
16 does it mean in general usage?

17 A In general use, it means typically a place where you  
18 store files. So it's storage-related ideas.

19 Q If a document were to use the term "repository" but not  
20 have the particular definition provided to us by the Court,  
21 would that bear upon your infringement analysis to any  
22 significant degree?

23 A No, it wouldn't.

24 Q Why not?

25 A It's critically important, when you analyze claims and

1 you look at an accused product, to use the Court's  
2 definition of those terms. The Court has told us  
3 specifically, for these claims in these patents, this is how  
4 you should understand the term.

5 This is what -- in this example, this is what  
6 repository means in these claims in these patents. This is  
7 the definition that you must apply.

8 There can be all sorts of different -- different ideas  
9 associated with repository in the general literature and  
10 product documents, but those do not rule the analysis. What  
11 rules the analysis is what the Court has told us the terms  
12 mean.

13 Q Are usage rights -- is that a phrase, also, that  
14 appears in -- in general industry verbiage?

15 A Yes, it is.

16 Q And does that necessarily mean the same thing as Judge  
17 Gilstrap has defined it?

18 A No, no. The same -- the same idea applies. You have  
19 to use Judge Gilstrap's definition of the terms and apply  
20 those to the accused product, not what the general industry  
21 might use.

22 Q You are testifying as an expert, and yesterday we heard  
23 from fact witnesses. Could you tell us about the different  
24 roles as you understand it, please, sir?

25 A Well, the fact witnesses, like Mr. Fasoli and Mr. Ward,

1 were here to talk about their systems, the Apple systems.  
2 They were not here to apply the Court's definitions of the  
3 terms to the products and compare them against the claims.  
4 That's the work that I'm doing as an expert.

5 Q Dr. Kelly, would you, starting at the top here,  
6 describe for us how Judge Gilstrap has defined these terms,  
7 "repository" and "trusted"?

8 A Well, he has told us that a repository is a trusted  
9 system in that it maintains -- and you've heard about these  
10 three integrities -- physical, communications, and  
11 behavioral integrity in the support of usage rights.

12 Q How about "trusted"?

13 A Well, it's similar.

14 Maintains physical, communications, and behavioral  
15 integrity in the support of usage rights.

16 They're essentially parallel definitions.

17 Q Do each of the construed terms, "repository" and  
18 "trusted," require these elements of physical integrity,  
19 communications integrity, and behavioral integrity?

20 A Yes, they do.

21 Q Is that what you mean, sir, when you say that these are  
22 essentially parallel?

23 A Yes, correct.

24 Q Is this the definition that you used and you applied in  
25 conducting your infringement analysis?



1 A Yes, it is.

2 Q Dr. Kelly, I'd like to ask you to, first of all --  
3 start by addressing physical integrity.

4 Do you see that there on the slide?

5 A I do, yes.

6 Q What -- what is it that the Court has given us as the  
7 definition of physical integrity?

8 A Physical integrity -- one of the three integrities --  
9 and the Court has told us that that means preventing access  
10 to information in a repository by a non-trusted system.

11 Q So directing your attention to the picture, what is the  
12 device that is represented here?

13 A Well, that's a device -- that's a picture that  
14 represents a repository.

15 Q The repository wouldn't necessarily have to look like  
16 that, or does it?

17 A Oh, no, no. This is -- this is -- a repository could  
18 take on different shapes, certainly.

19 Q What do the red arrows indicate here in the picture?

20 A Well, the idea is that -- that -- that these red arrows  
21 are attempts to access the information. And these attempts  
22 are coming from a non-trusted system, and so the repository  
23 is preventing this access. It's -- you know, it's repelling  
24 the red arrows.

25 Q Is -- in the analysis that you performed, is the user

1 to be considered trusted?

2 A No, definitely not. The user is a -- is a -- the  
3 typical hacker would be a user of the system.

4 Q Could you give us an example of a device that has  
5 physical integrity?

6 A Yes. This is -- this is an IBM device. It's called  
7 the 4758. And this has physical integrity.

8 There is -- there are components inside the case, the  
9 piece that's labeled with the yellow "caution" label, and if  
10 you were to tamper with this, if you were to force it open,  
11 then the internal contents are destroyed and the memory is  
12 destroyed.

13 Q Does Apple have the type of physical integrity that  
14 Judge Gilstrap has defined for us?

15 A No, it doesn't.

16 Q Does Apple need the type of physical integrity that  
17 Judge Gilstrap has defined for us?

18 A No, it doesn't.

19 Q Asking you now, sir, about communications integrity.  
20 Could you, starting at the top here, tell us how the Court  
21 has defined communications integrity.

22 A Yes.

23 Again, it's one of the three integrities that are  
24 required by a repository. And -- and the definition that  
25 the Court has given us for communications integrity set out

1 here: Only communicates with other devices that are able to  
2 present proof that they are trusted systems, for example, by  
3 using security measures, such as encryption, exchange of  
4 digital certificates, and nonces.

5 Q What is reflected in the picture at the bottom half of  
6 the slide?

7 A Well, this would be a case that -- that -- that does  
8 have communications integrity. There are a number of  
9 repositories, and they communicate with each other.

10 And -- because it says: Only communicates with other  
11 devices that are able to present proof that they are trusted  
12 systems. It's communicating with other trusted systems.  
13 And it's doing that over a secure communications channel.

14 Q What happens to communications integrity if, for  
15 example, one of these devices that's described as a  
16 repository turns out not to be a repository, turns out not  
17 to be trusted?

18 A Well, then -- then communications integrity will fail.

19 Q Why is that?

20 A Because it says here it only communicates with other  
21 devices that are able to present proof that they are  
22 trusted.

23 And so if one of them is not trusted, it's not going to  
24 provide proof that it's trusted. But if -- if -- it's being  
25 communicated with, then that's broken the communications

1 integrity.

2 Q What is the purpose of communications integrity as  
3 distinct from physical integrity which you've previously  
4 described to us, Dr. Kelly?

5 A Well, physical integrity prevents the access, but if  
6 you don't have communications integrity, then it's possible  
7 to eavesdrop on this communication. It's possible for a  
8 third party now to access the information as it travels  
9 perhaps from -- from one device to another.

10 Q Would you start with this slide, Dr. Kelly, by telling  
11 us how the Court has defined behavioral integrity?

12 A Yes. This is the last of the three integrities. And  
13 behavioral integrity is requiring software to include a  
14 digital certificate in order to be installed in the  
15 repository.

16 Q What is depicted in the -- in the diagram or picture at  
17 the bottom half of this slide?

18 A Well, again, we have our -- our icon representing a  
19 repository in the middle. And then on the left-hand side, I  
20 have software. Looks like a CD. And the software includes  
21 a digital certificate. It's in the software. And then  
22 there's a green arrow here which says: Yes, you can  
23 actually install this in the repository.

24 On the other hand, on the right-hand side, we have  
25 software that does not include a digital certificate, and

1 that may not be installed in the repository. The repository  
2 prevents that installation, and that's depicted by the red  
3 arrow being bounced off.

4 Q What's the risk of installing software that doesn't  
5 include a digital certificate?

6 A Well, if you can -- you can install malicious software.  
7 You can install incorrect software. You can install  
8 software that -- that does many different things, and -- and  
9 you have no control over what might happen.

10 Q Absent the use of a digital certificate, could software  
11 prepared by a hacker or an attacker be installed on a  
12 computer?

13 A Yes, indeed. I mean, a virus being -- being one  
14 example of that. I mean, those -- those happen in -- in  
15 systems on a routine basis.

16 Q Are there other ways known in the field of computer  
17 science to verify the identity of the possessor or author of  
18 software?

19 A Sure. Sure.

20 Q What are some of those?

21 A Well, you can -- you can have discussions with  
22 somebody. You can -- you can have personal trust as -- as  
23 one way to know where the software is coming from. You can  
24 develop a software as -- as part of a team. There -- there  
25 are other ways to do it.

1 Q Is there any claim, to your awareness, Dr. Kelly, in  
2 this case that ContentGuard holds a patent to personal  
3 trust?

4 A No. I don't think that would be possible.

5 Q If a company used alternative ways of establishing the  
6 identity of the possessor or author of software, ways other  
7 than a digital certificate, would that implicate this --  
8 this claim element?

9 A No. This says clearly it requires software to include  
10 a digital certificate. If it doesn't include a digital  
11 certificate, then it doesn't meet the requirements of  
12 behavioral integrity.

13 Q I want to ask you now, Dr. Kelly, about usage rights as  
14 set forth on the screen here. Would you please, sir, take a  
15 moment to describe for us how to read this definition of  
16 usage rights?

17 A Yes. It -- it is a little complicated.

18 First of all, if we turn our attention to the second  
19 line, there are some square brackets. And -- and what this  
20 says is: A digital work/digital content/content or a  
21 digital document.

22 And basically what this means is that the -- the -- the  
23 digital content is called sometimes by different words in  
24 the claims, but for the purposes of usage rights, they all  
25 mean the same.

1           So I'll just call this content for now. So we can take  
2 the square bracket and sort of abbreviate it to content. So  
3 then this says that -- and -- and putting aside the yellow  
4 highlight for a moment: Indications to content that  
5 indicate the manner in which the content may be used or  
6 distributed.

7           So if we take that piece for a moment, this is talking  
8 about -- about indications that indicate the manner in which  
9 the content can be used. That's the first key part.

10       Q     Would you then, Dr. Kelly, talk about the second key  
11 part of the Court's definition?

12       A     The second key part is that those indications that  
13 indicate the manner of use must be attached or treated as  
14 attached to the content.

15       Q     And how about the other language that's set forth here  
16 of usage rights in the Court's definition?

17       A     Well, at the end here, it explains that there may be  
18 conditions on which the use or distribution is premised. So  
19 there may be some optional conditions that go along with --  
20 with the -- the indications.

21       Q     Did you apply this definition of usage rights in your  
22 work?

23       A     I definitely did, yes.

24       Q     As defined here in the Court's definition, does the  
25 Apple system use usage rights that are attached or treated

1 as attached?

2 A They do not.

3 Q Do the -- do -- do the patents or -- or -- do  
4 ContentGuard's patents describe what it means for a -- a  
5 usage rights to be attached?

6 A Yes, they do.

7 Q Directing your attention, first of all, to the language  
8 there, would you read that into the record, Dr. Kelly?

9 A Certainly. It's headed Attaching Usage Rights to a  
10 Digital Work. And it says: It is fundamental to the  
11 present invention that the usage rights are treated as part  
12 of the digital work. As the digital work is distributed,  
13 the scope of the granted usage rights will remain the same  
14 or may be narrowed.

15 Q Now, asking you, please, sir, to direct your attention  
16 to Figure 1. What is described in Figure 1 of AX-004, the  
17 '072 patent?

18 A This is a flowchart which discusses creating a digital  
19 work and then -- and -- and then providing it to a -- a  
20 second repository.

21 Q Would you walk us through, Dr. Kelly, the steps that  
22 are depicted there in Figure 1?

23 A Yes. The first step -- and you'll see there's a little  
24 number above the box that says 101. So we could call that  
25 the first step or -- or Step 101.



1           It says that the creator creates a digital work. So  
2 now we have a work, and the very next thing that happens is  
3 usage rights are attached to the digital work. And then  
4 that work, with the attached usage rights, is deposited into  
5 a first repository, Repository 1.

6           And then the third block, labeled 103, now they --  
7 another repository, Repository No. 2, is -- is going to try  
8 to get access to -- to this work. So Repository 2 requests  
9 access to the digital work for some purpose -- for a stated  
10 purpose.

11           And then the next box, Repository 1, checks the usage  
12 rights of that digital work -- so that's the work that has  
13 the attached usage rights that's in Repository 1 -- and  
14 determines if the access may be granted, and then either  
15 it's granted or it's not.

16           And if it is granted, 107 says Repository 1 transmits  
17 the digital work to Repository 2. So that's the digital  
18 work that has the usage rights attached. And then, finally,  
19 it will land up at Repository 2.

20 Q       As described here in Figure 1 of the '072 patent, are  
21 the usage rights traveling with the content as the content  
22 and usage rights move from box to box?

23 A       Yes, they are.

24 Q       Now, if --

25 A       Once they're attached in the -- in the second box.

1 Right after it's created, the usage rights are attached, and  
2 from there on, they're traveling together.

3 Q If -- if a ContentGuard expert suggested that usage  
4 rights might be attached just down on the user device, would  
5 that be consistent or inconsistent with Figure 1?

6 A It would be inconsistent with Figure 1.

7 Q How so?

8 A Well, this clearly shows -- Figure 1 shows that the  
9 very next step after creating the digital work is to attach  
10 the usage rights. And then when the -- and then that's put  
11 in the repository with the attached usage rights.

12 And then later on when the request is made and if the  
13 request is granted to actually send this to the second  
14 repository, the attached usage rights go along right with  
15 it.

16 That's not the same as having the usage rights, if  
17 there are any, come from one place and the content come from  
18 some other place, and then they may or may not be attached  
19 at -- at the destination.

20 Q Does Figure 1 appear anywhere else other than in the  
21 Stefik '072 patent?

22 A I believe it's in all of the Stefik patents.

23 Q I want to direct your attention to the phrase: That  
24 indicate the manner in which the content may be used.

25 Do you see that there?

1 A I do.

2 Q Now, were you here when Dr. Goodrich testified?

3 A I was.

4 Q Was Dr. Goodrich asked the question: Information in  
5 the usage rights tells the repository what it can and cannot  
6 do with the digital content?

7 Was he asked that question?

8 A He was.

9 Q And what was his answer?

10 A "Yes, sir."

11 Q Now, what is it that Dr. Goodrich is pointing to on the  
12 Apple system that are supposed to be, as ContentGuard  
13 claims, the usage rights that are attached or treated as  
14 attached?

15 A He is pointing to two fields in the purchase response.  
16 And those two fields are the "kind" field and the "isRental"  
17 field.

18 Q Are the "kind" field and "isRental" field information  
19 what tells the Apple system what it can and cannot do with  
20 the digital content?

21 A No, they are not.

22 Q Has Dr. Goodrich pointed to the keys in the Apple  
23 system as the usage rights that are attached or treated as  
24 attached?

25 A No, he has not.

1 Q Were you present, Dr. Kelly, when Mr. Fasoli testified  
2 yesterday about the Apple secure container approach?

3 A Yes, I was.

4 Q Now, did Mr. Fasoli use the phrase "secure container  
5 approach"?

6 A Yes, he did.

7 Q Is -- is secure container approach something that  
8 appears many places in the Apple documents and that sort of  
9 thing, or does Apple refer to its own approach in its own  
10 terms?

11 A Well, Apple uses its own description of its -- of its  
12 system.

13 Q And is that system, as described by Apple in its own  
14 documents, is that consistent with the secure container  
15 approach?

16 A Yes, it is.

17 Q Would you, starting in the upper left-hand corner here,  
18 please, describe for us the first element of the Apple  
19 system as you understand it on the basis of your work?

20 A This is the -- this represents the Apple servers, and  
21 these servers are responsible for generating and sending  
22 keys and other information to the device that's going to --  
23 to actually be, say, playing the movie or -- or displaying  
24 the book.

25 Q I see that below the Apple servers that you've just

1 described, there's the box or container with the key. Would  
2 you describe for us what's depicted there?

3 A Yes. The way that -- that the Apple approach works is  
4 that the -- the content comes from one place and the key --  
5 and the content that comes is -- is encrypted, and the key  
6 that you need to decrypt that content comes from another  
7 place, comes from the Apple servers.

8 And what I'm showing down here in this picture is a --  
9 you know, it looks like a suitcase with a lock on it. That  
10 is the key that you will need to unlock the content, but  
11 that key is itself encrypted.

12 Q What is that content key encrypted with?

13 A That's encrypted with an account key for the user. So  
14 in this case it will be John's account key. This is John's  
15 device.

16 Q Does this figure have a depiction of the account key?

17 A Yes, it does. And you'll see that the blue key that is  
18 down on John's device is the account key, but, also, you'll  
19 notice that there is a blue John's account key up on the  
20 Apple server as well.

21 Q So what is depicted with reference to John's account  
22 key being up on the Apple server and also down on his  
23 device?

24 A The -- the content key, the red key, is the same key  
25 for every copy of -- of this movie wherever it goes. It's

1 always going to have the same red key, but that key will be  
2 encrypted specifically for John's account when the suitcase  
3 is sent down from the Apple server to John's device.

4 And in order to encrypt that key specifically for  
5 John's account, the Apple server uses John's account key.  
6 It has a copy for that purpose so it can -- it can encrypt  
7 the content key. And then down at the device, John's device  
8 has John's account key so it can decrypt the content.

9 Q Let me ask you now, Dr. Kelly, to describe what appears  
10 in the upper right-hand corner of Slide 20.

11 A That is a representation of the Akamai servers that  
12 we've heard about, and that is where the content is stored,  
13 and that's where the content comes from when -- when John's  
14 device gets, say, a movie, in this case a movie.

15 So the movie comes from the Akamai servers, not the  
16 Apple servers, and it is encrypted, and it's encrypted with  
17 this content key the same for everybody.

18 Q Why is the container for the content key locked with a  
19 blue lock and the secure container for the content lock with  
20 a red lock -- red lock in this depiction of the Apple  
21 system?

22 A The idea here is to show that -- it's that a red lock  
23 needs a red key and a blue lock needs a blue key. That's  
24 the idea. Of course, you know, this is -- this is just a  
25 picture.

1           So in order to unlock the movie, to decrypt the movie,  
2 you need the red key, and the red key is the content key.  
3 And similarly, to get the content key, which itself is  
4 locked or encrypted, you need the blue key because it's --  
5 and that's the account key. And that's because it's been  
6 encrypted with the account key. You need the same key to  
7 decrypt it.

8       Q     With reference now to Slide 21, which I've put up in  
9 front of you, Dr. Kelly, would you walk us through the steps  
10 of decryption involving the keys in the manner that you've  
11 described?

12       A     Yes. In order to play this movie, you need to decrypt  
13 it. So the first step here is the -- you need the key to  
14 decrypt. That is the red Captain America key. But that  
15 itself is encrypted so you have to first get access the red  
16 key.

17           And you do that by finding the blue account key that  
18 will be on John's device, get the blue account key, and --  
19 and we heard that's stored in the so-called Keybag -- get it  
20 out of the Keybag and use that to unlock the -- the content  
21 key, the Captain America key.

22           Now, once you've got that key, you can actually use it  
23 to unlock the movie and play the movie.

24       Q     I see there the reference to Cloakware. Would you tell  
25 us the role that Cloakware plays in the process that you've

1 just described?

2 A Yes. The big vulnerability in the system is that if  
3 you can get keys -- if you can get the account key, you can  
4 do everything. You can unlock the -- the content key, and  
5 you can unlock the movie. And -- and that is a serious  
6 vulnerability. It's a weakness here.

7 And what Cloakware does is it hides the keys and it  
8 makes -- it makes the keys very much more difficult to find.  
9 And that process is -- is called obfuscation.

10 But it basically means make the -- make the keys much  
11 harder to find and make the use of those keys, the -- the --  
12 the steps that the computer program goes through much, much  
13 more complex and much, much more difficult to follow so that  
14 somebody who wants to hack into the system has a -- has a  
15 very, very much more difficult time trying to figure out  
16 what's going on and where the keys are.

17 Q What keys are used in the case of a rental of content?

18 A Instead of an account key, there is something called a  
19 rental key. And that rental key is -- is stored in a  
20 different Keybag called the Rentalbag.

21 Q Are the steps that you've described otherwise generally  
22 the same for a rental key and an account key?

23 A Yes, there are -- they are in terms of unlocking the --  
24 the content key and -- and then playing the movie. But  
25 there are additional time considerations on -- on whether or



1 not you can play the movie.

2 Q Is this system at Apple, as you've described it,  
3 Dr. Kelly, a secure container approach or a trusted system  
4 approach?

5 A It's a secure container approach. It's not the basic  
6 secure container approach. I mean, it has been developed  
7 over the years, but it is a secure container. The -- the  
8 content is encrypted. Keys are used to -- to control access  
9 to that content, and the keys are used to unlock it and --  
10 and play it.

11 Q Were you here for the opening statements at this trial?

12 A I was.

13 Q Did you hear the opening statement of the -- of the  
14 ContentGuard lawyer, Mr. Baxter?

15 A I did, yes.

16 Q Did you hear when Mr. Baxter stated that for DRM-free  
17 music, the Apple system is a secure container approach?

18 A I did.

19 Q Did you hear when Mr. Baxter stated that for the  
20 accused content, the Apple system is a trusted system  
21 approach?

22 A I did.

23 Q Does the Apple system move from secure container or  
24 trusted system in the manner that Mr. Baxter described?

25 A No. That doesn't make sense to me. The Apple system

1 is a secure container approach.

2 Q Has Apple stopped all of the attacks on its system  
3 using these enhancements of Cloakware and two keys instead  
4 of one key?

5 A No, it has not.

6 Q What, just in general terms, does the existence of  
7 continuing hacks tell you about the nature of the Apple  
8 system and whether it's a secure container or a trusted  
9 system?

10 A Well, the kind of hacks that -- that have been used to  
11 attack the system are consistent with the secure container  
12 approach -- trying to find the keys, trying to get the  
13 content when it's in the clear, and using tools that are  
14 installed on -- on the Macs and PCs and -- and anywhere --  
15 any opportunity to -- to get at the actual operation of the  
16 system.

17 Q As you understand it, Dr. Kelly, does ContentGuard  
18 claim to have invented key-based DRM systems?

19 A I don't believe so.

20 Q As you understand it, Dr. Kelly, has ContentGuard  
21 claimed to have invented Cloakware?

22 A No, they have not.

23 Q Who is the -- or -- or what company is the inventor of  
24 Cloakware?

25 A It's a Canadian company.

1 Q Are there patents that cover Cloakware?

2 A There are.

3 Q Does Apple have a license to the Cloakware patents?

4 A Yes, they do.

5 Q Do the -- do the ContentGuard patents say anything  
6 about Cloakware?

7 A They do not.

8 Q Starting in the upper left-hand corner here, Dr. Kelly,  
9 would you describe for us the picture there and what's --  
10 what's intended to be represented by that picture?

11 A In the -- in the previous slide describing the Apple  
12 system, we had one group of Apple servers. But, in fact,  
13 those servers are -- are made up of two groups of servers.  
14 They're -- they're all Apple servers, but some of them are  
15 for FairPlay, the actual FairPlay servers, and some are for  
16 the iTunes Store -- the iTunes Store servers.

17 The FairPlay servers do the actual key generation and  
18 the -- the DRM algorithms. And the iTunes Store is the --  
19 those servers are the ones that -- that you see when you log  
20 on -- when you open iTunes and you -- you start selecting  
21 music or movies that you want to buy. You are then  
22 interacting with the iTunes Store.

23 Q Are both the FairPlay servers and the iTunes Store  
24 servers elements of the Apple system?

25 A Yes, they are.

1 Q In order to demonstrate that Apple uses repositories in  
2 the manner defined by the Court, is it necessary to show  
3 that both the FairPlay and the iTunes Store servers are  
4 repositories?

5 A Yes, indeed.

6 Q Are either of these repositories?

7 A They are not.

8 Q Why are Apple's servers not repositories, just at a  
9 high level?

10 A Well, I mean, one reason is that they do not have  
11 behavioral integrity. And recall that -- that to be a  
12 repository, you have to have all three integrities in  
13 support of usage rights. And -- and they do not have  
14 behavioral integrity.

15 Q Starting at the top of the slide, Dr. Kelly, what is  
16 the Court's definition again for behavioral integrity?

17 A It says it's requiring software to include a digital  
18 certificate in order to be installed in the repository.

19 MR. DAVE ANDERSON: Mr. Simmons, could we call up,  
20 please, Slide 59? I want to come back to this, but I want  
21 to call up 59 for a moment.

22 Q (By Mr. Dave Anderson) Dr. Kelly, has the Court defined  
23 what a digital certificate is?

24 A Yes, it has.

25 Q Would you --

1 A It told --

2 Q Would you describe the digital certificate definition  
3 provided by the Court?

4 A Certainly.

5 The Court has told us that a digital certificate is a  
6 signed digital message that attests to the identity of the  
7 possessor.

8 Q What is it that's depicted in the picture here on  
9 Slide 59?

10 A Well, this is an example of software that does include  
11 a digital certificate, and in this case, it can be installed  
12 in the repository.

13 Q What does it mean for a digital certificate to be  
14 included in the software?

15 A Well, what I've depicted here is that it's actually  
16 part of the software. If -- if you -- if you get the -- the  
17 1s and 0s of the software, then in this case, it's stored on  
18 a -- on a CD-ROM, an optical disk. You'll actually -- you  
19 could, if -- if you went in there and -- and looked  
20 properly, you could find the digital certificate.

21 It's also 1s and 0s that are on that -- on that optical  
22 drive -- optical disk, I mean. Sorry.

23 MR. DAVE ANDERSON: Would you, Mr. Simmons,  
24 please, take us back to 23 now?

25 Q (By Mr. Dave Anderson) Does the Court's definition of

1 behavioral integrity require that the digital certificate be  
2 included with the software in the software?

3 A Yes, it does. It says here: Requiring software to  
4 include a digital certificate.

5 Q Were you here for the testimony yesterday, Dr. Kelly,  
6 of Mr. Fasoli?

7 A I was.

8 Q Were you here yesterday for the testimony of Mr. Ward?

9 A I was.

10 Q Do you remember seeing this slide during the  
11 examination and the cross-examination of Mr. Fasoli and  
12 Mr. Ward?

13 A I do.

14 Q Just in general terms, on the existence or the  
15 nonexistence of a digital certificate included in the  
16 software and required in order to be installed, what is the  
17 testimony of Mr. Fasoli and Mr. Ward as you heard it?

18 A Well, consistent with -- with the red words here, there  
19 is no digital certificate.

20 Q Now, do you recall there being questions yesterday  
21 about SSL?

22 A Indeed I do.

23 Q Would you describe for the jury, what is SSL?

24 A That stands for Secure Sockets Layer. And basically it  
25 is a way to provide a secure communications channel between

1 two end points.

2 And in this case, it -- it would be the computer in the  
3 Ward team that is sending the FairPlay software and the  
4 computer in the server team that's receiving the FairPlay  
5 software.

6 Q Can an SSL link, in the way that you've described it,  
7 use a digital certificate?

8 A Yes, indeed.

9 Q Is that the same or is it different from requiring  
10 software to include a digital certificate in order to be  
11 installed?

12 A It's quite different. The -- this -- what the -- what  
13 the digital certificate in SSL would do is make sure that  
14 what goes into -- it secures the channel, basically. It  
15 does nothing to -- to look to see if there is a digital  
16 certificate in the information that's being sent down the  
17 channel in that software that you are sending.

18 Q Is the use of SSL to pass the FairPlay software from  
19 the Ward team to the server team a system requirement at  
20 Apple?

21 A No, it's not.

22 Q Even if SSL were a system requirement at Apple for the  
23 passing of software from the Ward team to the server team,  
24 would that use of SSL satisfy the requirement of including a  
25 digital certificate in order for software to be installed?

1 A No, it would not. It still is not a digital  
2 certificate included in the software.

3 Q So, Dr. Kelly, does FairPlay require that software  
4 include a digital certificate in order to be installed?

5 A No, it does not.

6 Q Were you here for the testimony of Dr. Smedley?

7 A I was, yes.

8 Q Do you understand Dr. Smedley's role in this lawsuit?

9 A Yes, I do.

10 Q What is Dr. Smedley's role as you understand it?

11 A He was the source code expert. He looked at the source  
12 code and analyzed that with a team of people.

13 MR. DAVE ANDERSON: Mr. Simmons, I'd like to bring  
14 up, if you could, please, PD 5.2.

15 Q (By Mr. Dave Anderson) Dr. Kelly, I've put out in front  
16 of you here one of the slides that Dr. Smedley used in his  
17 testimony.

18 Do you see that there?

19 A I do.

20 Q As set forth in Dr. Smedley's slide, how much time did  
21 Dr. Smedley spend on behalf of ContentGuard analyzing the  
22 Apple source code?

23 A Well, it says on the -- on the fourth bullet point that  
24 he personally spent 270 hours, and then his team spent 2,750  
25 hours.



1 Q What is the meaning, to your understanding, of the  
2 parenthetical 69 man weeks?

3 A Well, that -- that would be 27 -- 2,750 divided by 40,  
4 I presume.

5 Q Is the idea there that a single person would work for  
6 69 weeks to do that work?

7 A That -- that's correct. That's the idea, that one  
8 person worked for 69 weeks, two people worked for half of  
9 that, if they were working together. That's the basic idea.

10 Q Now, do you understand that one of the things that  
11 Dr. Smedley was looking for in this source code, on the  
12 basis of his testimony, was a digital certificate for the  
13 iTunes and FairPlay servers?

14 A Yes, I do.

15 Q Do you have any understanding as to how much of the  
16 2,750 hours of computer time Dr. Smedley and his team spent  
17 looking for the digital certificate that's required by the  
18 Court?

19 A I don't know.

20 Q But some portion of that, would that be a fair  
21 assumption, you think?

22 A I assume that's correct.

23 MR. DAVE ANDERSON: Could we go now, Mr. Simmons,  
24 to Slide 24.

25 Q (By Mr. Dave Anderson) After this -- this search, this

1 review as described on the previous slide, what was  
2 Dr. Smedley's conclusion about the existence or nonexistence  
3 of a digital certificate that is required to update the  
4 software on the servers?

5 A Well, he says he was asked. And for the Apple servers  
6 that run iTunes and FairPlay, so that's both of the servers,  
7 the FairPlay ones we were talking about a moment ago, but  
8 there are also the iTunes servers.

9 So for both of them: You did not identify in your  
10 report any digital certificates that are required to  
11 update -- to update those servers, did you, sir?

12 And his answer was: We didn't find that in the code  
13 that Apple produced, no.

14 Q What does Dr. Smedley's inability to identify a digital  
15 certificate say to you in terms of the infringement analysis  
16 that you performed?

17 A Well, it means that there is no behavioral integrity in  
18 these servers. If you can't find a digital certificate,  
19 then you can't meet the behavioral integrity requirement.  
20 If you can't meet the behavioral integrity requirement, then  
21 you can't show a repository. And a repository is required  
22 in every one of the five claims that have been asserted  
23 against the Apple products.

24 Q Does this testimony from Dr. Smedley, to your  
25 understanding, Dr. Kelly, mean that ContentGuard has not

1 proved infringement under any of the five claims?

2 A Yes, it does.

3 Q Are you, in your testimony, prepared to discuss other  
4 ways in which ContentGuard has failed to prove that Apple's  
5 system meets the requirement of a repository?

6 A Yes, I am.

7 Q Are those other ways independent reasons to reject the  
8 infringement case?

9 A Yes. There are a number of independent reasons.

10 Q Is this testimony in itself sufficient to establish  
11 that ContentGuard has not proved infringement, to your  
12 understanding, sir?

13 A Yes, it is.

14 Q Now, did you hear questions and testimony yesterday  
15 about software called rsync and Leopard OS X? Do you  
16 remember that yesterday?

17 A I do.

18 Q After hearing that testimony, those questions and that  
19 testimony about rsync and Leopard OS X, is there any change  
20 in your previously expressed opinion, and as set forth in  
21 your report, that FairPlay does not require that software  
22 include a digital certificate in order to be installed?

23 A No change to my opinion.

24 MR. DAVE ANDERSON: Your Honor, may I have one  
25 moment?

1 THE COURT: You may.

2 (Pause in proceedings.)

3 MR. DAVE ANDERSON: Okay. Mr. Simmons, could we  
4 go back to Slide 25.

5 Q (By Mr. Dave Anderson) What is your conclusion,  
6 Dr. Kelly, about whether the FairPlay servers, the iTunes  
7 Store servers, the Apple servers are or are not a  
8 repository, as defined by the Court?

9 A Well, they are not a repository. They don't have  
10 behavioral integrity, and, therefore, they fail the  
11 requirements of a repository. And that's true for the  
12 FairPlay servers. That's true for the iTunes Store servers,  
13 and -- and that's the collection that makes up the Apple  
14 servers.

15 Q Did you also analyze the Akamai servers to determine  
16 whether or not those are a repository?

17 A I did.

18 Q Were you present for the testimony of Dr. Goodrich  
19 about whether the Akamai servers are a repository?

20 A I was, yes.

21 Q In summary, what was Dr. Goodrich's testimony about  
22 whether the Akamai servers are repositories?

23 A Well, he said: I don't think the Akamai servers are  
24 repositories.

25 Q Do the Akamai servers need to be repositories, in your

1 opinion, Dr. Kelly, in order for ContentGuard to prove that  
2 the Apple system infringes the ContentGuard patents?

3 A Yes, they do.

4 Q Why is --

5 A If they're not -- sorry. If they're not repositories,  
6 then that means that -- that they're untrusted systems, and  
7 the other components of the system are communicating with  
8 them and accessing information from them, and that is  
9 inconsistent with the requirements of a repository.

10 Q In the Apple system when content is delivered from the  
11 Akamai servers down to the user device, what type of  
12 connection is used in order to deliver that content?

13 A It's not a secure connection. It's a -- it's a  
14 standard what we call HTTP connection.

15 Q What is an HTTP connection, for those of us who are not  
16 experts in the field of computer science?

17 A It is the -- it is the basic connection that -- that  
18 you would -- you would set up if you went to a web page that  
19 was not secured.

20 So if you just type in a web address in a browser and  
21 go off to -- to that page, you would establish an HTTP  
22 connection with the -- with the web server that you are --  
23 with the store or whatever it might be.

24 Q What is the significance, in your opinion, for the fact  
25 that this is not a secure connection between the Akamai

1 servers and the user's device?

2 A Well, this means that there is no communications  
3 integrity between the Akamai servers and John's device. So  
4 if there's no communications integrity, then this cannot be  
5 a repository.

6 Q Are you aware of any evidence that ContentGuard has  
7 presented in the trial that the Akamai servers are  
8 repositories?

9 A No, I'm not.

10 Q What is your conclusion, Dr. Kelly, about whether  
11 Akamai servers are repositories, as defined by the Court?

12 A Well, they are not repositories.

13 Q Have you formed opinions, Dr. Kelly, on whether the  
14 user devices are repositories, as defined by the Court, and  
15 required by ContentGuard's patents?

16 A Yes, I have.

17 Q At a high level, what is your opinion about whether  
18 user devices are repositories?

19 A Well, they don't have physical or behavioral integrity.

20 Q What is the implication of the conclusion that you've  
21 expressed that they don't have physical or behavioral  
22 integrity?

23 A Well, the Court has told us that a repository needs to  
24 have all three integrities in support of usage rights, and  
25 if it's missing one, it's not a repository. In this case,

1 it's missing two.

2 Q In your opinion, why do user devices fail the physical  
3 integrity requirement?

4 A Because basically you can access information on those  
5 devices. An untrusted system can access the information,  
6 and that is -- is to be prevented by physical integrity.

7 Q Are you surprised by the conclusion that you've reached  
8 that the user devices do not have physical integrity?

9 A Not at all.

10 Q Why not?

11 A Well, because they are -- some of the devices, for  
12 example, are -- are open systems. A Windows PC, a Mac, it  
13 is very straightforward to access the information on those  
14 devices.

15 And then the information that's on a device like an  
16 iPad or an iPhone can be accessed as well, through syncing,  
17 for example, to a -- to a PC or a Mac.

18 Q So in the manner that you've just described with regard  
19 to syncing, does the -- the open and untrusted system affect  
20 also the iPad and the iPhone?

21 A Yes, it does.

22 Q Was Dr. Stefik, as described in his patents, concerned  
23 about the inability to trust the user's computer?

24 A Yes, indeed.

25 Q I've put in front of you, Dr. Kelly, a portion of the

1 actual -- one of the actual Stefik patents, AX-0004. Do you  
2 see that there?

3 A Yes, I do.

4 Q As set forth in the language that's excerpted, what is  
5 it that Dr. Stefik had to say in this patent about the use  
6 of generic computer systems in a trusted system?

7 A He says here in this first sentence: A maker of  
8 generic computer systems cannot guarantee that their  
9 platform will not be used to make unauthorized copies. And  
10 so it's untrusted.

11 And then -- and then he contrasts that with  
12 repositories, and that's the second highlight lower down:  
13 In contrast, repositories prevent access to the raw data by  
14 general devices and can test explicit rights and conditions  
15 before copying or otherwise granting access.

16 Q What do you understand to be meant by the phrase  
17 "generic computer systems"?

18 A That would be that the computer like a Windows PC or --  
19 or a Mac personal computer.

20 Q Do you think that in this particular regard, as set  
21 forth by the Stefik patent, that Dr. Stefik's expressions  
22 that a generic computer system cannot be -- cannot be  
23 trusted, do you think that that's a fair assessment?

24 A I do.

25 Q Are generic computer systems able to use the Apple



1 system?

2 A Indeed. iTunes runs on Windows PCs, and it runs on,  
3 of course, Mac personal computers.

4 Q What has Apple deployed in its approach instead of  
5 physical integrity?

6 A It uses Cloakware.

7 Q And how is it that Cloakware differs from physical  
8 integrity, as defined by the Court?

9 A The -- the -- Cloakware does the things I described,  
10 but the important point is it is software that can run on  
11 many different platforms.

12 That software -- that Cloakware software can run on the  
13 Windows PC version of iTunes. It can run on the Mac  
14 personal computer version of iTunes. It can run on the  
15 iPad, the iPhone. So it's available for all of those  
16 devices because it's simply software.

17 Q Is there an advantage to Apple in using Cloakware  
18 instead of trying to achieve the physical integrity that is  
19 required by the ContentGuard patents?

20 A Certainly. The -- it is much more straightforward to  
21 implement a software solution like this on different  
22 platforms. You don't have to do this on a trusted platform.  
23 It can be in an open system, just as -- as we were  
24 describing when we were looking at the patent language.

25 If you do it in software like Cloakware, you can run it

1 on a Windows platform, a Mac platform, other platforms, and  
2 you do not need to go in and force the manufacturers -- or  
3 try to get the manufacturers to add special hardware or  
4 anything of the sort in their computers.

5 Q Would a requirement of adding special hardware, that  
6 sort of thing, would that make it more difficult for a  
7 company such as Apple to implement its system?

8 A Yes, very definitely. It would make it more difficult.  
9 They would have to persuade manufacturers to add that, that  
10 maybe have to add it to their own -- to their own Mac  
11 personal computers, and that would raise the cost as well.

12 Q In addition to the absence of physical integrity, as  
13 you have opined, Dr. Kelly, on the user device, are there  
14 any other elements that are missing to the repository  
15 requirements for the user devices?

16 A Yes.

17 One of the additional requirements for a repository is  
18 behavioral integrity. And that, as we saw with respect to  
19 the Apple servers, requires the digital certificate to be  
20 included in the software. And there's software that's  
21 installed on the user devices that does not include a  
22 digital certificate.

23 Q You used the term "software," and I want to ask you,  
24 does software include content as described in the Stefik  
25 patents?

1 A Yes, it does.

2 Q In industry language, would content always necessarily  
3 include -- would that necessarily be included in the term  
4 "software"?

5 A No. Software has -- has different meanings in the --  
6 in the general industry. It may or may not include content.

7 In the case of the Stefik patents, it does include  
8 content.

9 Q Do you have an understanding as to why it's important  
10 or valuable to the Stefik patents and the Stefik system to  
11 have content be considered software?

12 A Well, content, yes. Content can contain information  
13 that will corrupt the repository -- or potentially could  
14 corrupt the repository. And that is what you want to  
15 prevent from happening. You don't want to have a virus  
16 embedded in content.

17 And so it's important that you treat that the same way  
18 that you treat other software that you want to -- or you're  
19 attempting to install in the repository.

20 Q For the infringement analysis, what are the  
21 implications of software being installed on the user  
22 devices -- content being installed on the user devices  
23 without a digital certificate?

24 A Well, if that's the case, then the repository does not  
25 have behavioral integrity. Therefore, it's not a

1 repository, and, therefore, every single one of the  
2 ContentGuard claims fails.

3 Q Is this an independent reason why the ContentGuard  
4 claims are independent from the analysis that you performed  
5 on the Apple servers and the Akamai servers?

6 A Yes, it is. It's another why the accused products  
7 don't infringe the claims.

8 Q Back to Dr. Smedley's analysis. Was Dr. Smedley,  
9 according to his testimony, able to identify any digital  
10 certificates that are used to install digital content on the  
11 user devices?

12 A No, he didn't. He did not find them. He was asked  
13 that: You did not identify any digital certificates?

14 And he said: No, I did not.

15 And this is for installing things like movies, books,  
16 music, that sort of thing.

17 Q Did you analyze the source code, Dr. Kelly, and your  
18 team analyze the source code?

19 A Yes, we did.

20 Q Did you personally spend time working with the source  
21 code?

22 A I did, indeed.

23 Q Do you remember how many hours you personally spent  
24 working with the source code?

25 A I don't have an exact number, but it was probably on

1 the order of a hundred hours or so.

2 Q Do you agree with Dr. Smedley's concession here that he  
3 did not identify digital certificates for installing things  
4 like movies, book, music, that sort of thing on the user  
5 device?

6 A Yes, I do agree.

7 Q In summary, what is your conclusion about whether the  
8 user devices are or are not repositories?

9 A Well, they're not repositories. They don't satisfy the  
10 three integrities in support of usage rights.

11 MR. DAVE ANDERSON: Your Honor, I know we're  
12 coming up to the midmorning break. I have just maybe one  
13 more slide. If I complete this section, then --

14 THE COURT: It's your time, Counsel. Continue.

15 MR. DAVE ANDERSON: Thank you, your Honor. Thank  
16 you so much.

17 Q (By Mr. Anderson) In light of your conclusion,  
18 Dr. Kelly, that the Apple servers are not a repository, the  
19 Akamai servers are not a repository, and the user devices  
20 are not a repository, what does that say about the presence  
21 or absence of communications integrity on the Apple system  
22 as defined -- as communications integrity has been defined  
23 by the Court?

24 A There is no communications integrity.

25 Q Why is that?

1 A Communications integrity requires that -- that these  
2 things, if they were repositories, only communicate with  
3 other repositories.

4 And so these are not repositories; yet they are  
5 communicating with each other in support of usage rights.  
6 This means that there is no communications integrity.

7 Q Are you familiar with the phrase, as defined by Judge  
8 Gilstrap, of "in support of usage rights"?

9 A Yes, indeed.

10 Q Would you tell us what you understand the significance  
11 of that phrase is for your infringement analysis?

12 A I look to see whether the -- whether the accused  
13 servers and devices were repositories in support of usage  
14 rights. I consider that as part of the definition. And  
15 I've found that there were all sorts of situations, as I  
16 have explained, where these integrities were not met when  
17 they should have been in support of usage rights.

18 Q If someone were to conclude that just the Apple servers  
19 are not a repository but were asked to assume that the  
20 Akamai servers are a repository, John's device were a  
21 repository, if someone was asked to assume that those  
22 elements were repositories, but the proof was the Apple  
23 servers was not a repository, what would be the implications  
24 for communications integrity?

25 A That would mean that -- that there is no communications

1 integrity here. Because even if John's device here was a  
2 repository, it is communicating with something that is not a  
3 repository.

4 And it's exchanging information with that other set, in  
5 this case, the Apple servers. It's receiving information  
6 back. It's storing information that it got into John's  
7 device that it got from something that's not a repository.  
8 And that would mean that there is no communications  
9 integrity.

10 Q If even one element of the system is not a repository,  
11 does that disrupt the claims as to all of those elements?

12 A Yes, it does. We saw that earlier. The entire system  
13 needs to be trusted. The entire system needs -- these  
14 individual pieces all need to be repositories.

15 Q Is a trusted system, Dr. Kelly, only as strong as its  
16 weakest link?

17 A It is. That's correct.

18 MR. DAVE ANDERSON: Your Honor, I'm ready to move  
19 on to a new -- new topic.

20 THE COURT: It's your direct examination, Counsel.

21 MR. DAVE ANDERSON: Thank you, your Honor. Thank  
22 you.

23 Q (By Mr. Dave Anderson) Dr. Kelly, directing your  
24 attention now back to the element of attached or treated as  
25 attached usage rights, at a high level now, what is it in

1 the Apple system that controls usage?

2 A It is the account key or the rental key. An account  
3 key, of course, for -- for movies that you purchase, for  
4 books and so on. And then the rental key if you are renting  
5 a movie.

6 Q How is it that the user receives the account key or the  
7 rental key as applies?

8 A They receive it from Apple, from Apple's servers.

9 Q And what is the function of the account key and the  
10 rental key in the Apple system?

11 A It is basically to -- to determine whether or not, if  
12 you have the key, you are able to -- if it's a movie, you're  
13 able to play the movie. You're able to use the content. If  
14 you don't have the account key, you can't play the movie,  
15 you can't read the book, so on.

16 Q Has ContentGuard in this case, to your understanding,  
17 Dr. Kelly, claimed that the account key and the rental key  
18 that control usage in the Apple system are the usage rights  
19 as defined by the Court?

20 A No, they have not.

21 Q The Court has previously received testimony in this  
22 trial that there can be multiple devices used by an Apple  
23 user. Would you tell us your understanding of how it is  
24 that multiple devices can be used by a single user?

25 A Yes. Devices can be authorized to -- to receive the



1 account keys, and that would be -- currently it's five  
2 personal computers. So Macs or PCs, up to five. And then  
3 an unlimited number of devices like iPhones or iPads.

4 Q In the way that is described in this picture here,  
5 where is it that the account keys and the rental keys come  
6 from?

7 A They all come from the Apple servers.

8 Q When they come from the Apple servers, are they  
9 attached or treated as attached to the content?

10 A No, they are not. The content comes from somewhere  
11 else.

12 Q Where does the content come from?

13 A Over on the right-hand side of this picture, I show the  
14 Akamai servers. That's where the content comes from.

15 Q Is a user able to play purchased or rented content  
16 without the account key or the rental key on that device?

17 A No, they are not.

18 Q When the content key is delivered, is it delivered with  
19 a packet of additional information that comes from the Apple  
20 servers?

21 MR. DAVE ANDERSON: Withdrawn. Withdrawn.

22 Q (By Mr. Dave Anderson) When the content key is  
23 delivered, is it delivered by itself, or does it come with  
24 other information as well?

25 A Well, it -- it fundamentally comes on its own. There

1 may be some, you know, other header information with it,  
2 but -- but it's basically a separate -- separate  
3 transmission from the Apple servers to the devices or the  
4 PCs or the Mac computers.

5 Q How about the account key? Is the account key sent  
6 separately?

7 A Yes, it is.

8 MR. DAVE ANDERSON: Your Honor, may I have one  
9 moment?

10 THE COURT: Yes.

11 (Pause in proceedings.)

12 THE COURT: Counsel, approach the bench.

13 (Bench conference.)

14 THE COURT: How much more do you have with this  
15 witness, Mr. Anderson?

16 MR. DAVE ANDERSON: I've got a while more.

17 THE COURT: Well, I gathered those were your  
18 signals you were trying to send me, although I was a little  
19 slow on the uptake.

20 MR. DAVE ANDERSON: Sorry about that, Judge.

21 THE COURT: I'm going to have to give this jury a  
22 recess. We'll do that, and then we'll come back, okay?

23 MR. DAVE ANDERSON: Thank you, your Honor.

24 (Bench conference concluded.)

25 THE COURT: Ladies and gentlemen, this examination

1 has a while to go longer, so we're not going to wait it out.  
2 We're going to stop at this point and take a recess.

3 If you would, just leave your notebooks in your  
4 chairs. Don't discuss the case among yourselves. Follow my  
5 other instructions, and we'll be back shortly and continue  
6 the Defendant's direct examination of Dr. Kelly.

7 But the jury is excused for recess at this time.

8 COURT SECURITY OFFICER: All rise for the jury.

9 (Jury out.)

10 THE COURT: All right. The Court stands in  
11 recess.

12 (Recess.)

13 COURT SECURITY OFFICER: All rise.

14 THE COURT: Be seated, please.

15 Dr. Kelly, if you'd like to return to the witness  
16 stand.

17 And, Mr. Anderson, you're there at the podium, I  
18 see.

19 Okay. Good.

20 Any idea of about how much longer your cross -- or  
21 your direct is going to be?

22 MR. DAVE ANDERSON: Your Honor, I'm through about  
23 two-thirds of my slides and --

24 THE COURT: Okay.

25 MR. DAVE ANDERSON: -- if I was going to guess, I

1 would guess that this next third is probably a little bit  
2 more compact than the preceding two-thirds.

3 So we've gone an hour-and-a-half, two hours.  
4 I'd -- I'd estimate an hour.

5 THE COURT: All right.

6 All right. Let's bring in the jury, please.

7 COURT SECURITY OFFICER: All rise for the jury.

8 (Jury in.)

9 THE COURT: Please be seated, ladies and  
10 gentlemen.

11 Mr. Anderson, you may continue with your direct  
12 examination of the witness.

13 MR. DAVE ANDERSON: Thank you, your Honor.

14 Mr. Simmons, could we bring up Slide 43?

15 Q (By Mr. Dave Anderson) Dr. Kelly, I'd like to ask you  
16 about the elements of this slide, starting with the Apple  
17 servers in the upper left-hand corner. Those are the  
18 subject of your previous testimony?

19 A Correct.

20 Q And the Akamai servers in the upper right-hand corner  
21 are also subject of your previous testimony?

22 A That is correct.

23 Q And the user device at the bottom is also the subject  
24 of your previous testimony?

25 A Correct.

1 Q You've testified previously about the keys, both the  
2 content key and the account key.

3 A I did.

4 Q So what is this picture of this piece of paper that  
5 says "iTunes"? What does that represent?

6 A That -- that represents the purchase response.

7 Q What is the purchase response?

8 A When -- when the user device, John's device in this  
9 case, wants to purchase a movie, say, a purchase request is  
10 sent from the user device up to the Apple server. And in  
11 response to that, a purchase response is sent by the Apple  
12 servers down to the user's device.

13 Q Now, does the purchase response travel to the user's  
14 device separately from the content?

15 A Yes, it does.

16 Q Is the purchase response sent -- sent separately from  
17 the Akamai servers?

18 A Yes, it is.

19 Q What is your understanding of the pieces of information  
20 or data that Dr. Goodrich has testified are the usage rights  
21 that are attached or treated as attached?

22 A They are two of the fields within this purchase  
23 response. And specifically, they are the "kind" field and  
24 the "isRental" field.

25 Q Are the "kind" field and the "isRental" field within

1 the purchase response -- do those control usage?

2 A They do not.

3 Q What controls usage in the Apple system?

4 A The -- if it's -- if it's a purchased movie, it's the  
5 account key. And so in this case, the blue John's account  
6 key. And if it happens to be a rental, then it will be the  
7 rental key.

8 MR. DAVE ANDERSON: Mr. Simmons, could you go to  
9 Slide 19?

10 Q (By Mr. Dave Anderson) Now, has Dr. Goodrich conceded  
11 that in order for something to be usage rights, it must  
12 actually tell the repository what can and cannot be done  
13 with the content?

14 A Yes. And we saw that slide earlier.

15 MR. DAVE ANDERSON: So let's go back, Mr. Simmons,  
16 to Slide 43.

17 Q (By Mr. Dave Anderson) So let me ask you this,  
18 Dr. Kelly: Given that the purchase response arrives  
19 separately from the content, and given that Dr. Goodrich is  
20 pointing to pieces within that purchase response as the  
21 usage rights that are claimed to be attached or treated as  
22 attached, what are the implications of this separateness for  
23 your infringement analysis?

24 A Well, just looking at the separateness question, it  
25 means that these -- if they were usage rights, which I don't

1 believe they are, they would not be for another reason,  
2 which is that they are not attached or treated as attached  
3 to the content.

4 Q I put up in front of you, Dr. Kelly, two slides that  
5 were used by Dr. Goodrich in his -- in his testimony. In  
6 the upper right-hand corner, there's one of Dr. Goodrich's  
7 slides calling out the "isRental" field of the purchase  
8 response.

9 Do you see that there?

10 A I do.

11 Q And further down do you see there one of Dr. Goodrich's  
12 slides calling out the "kind" field within the purchase  
13 response?

14 A I do.

15 Q Now, are these Dr. Goodrich's slides that are set forth  
16 here within -- within your slide?

17 A They are, indeed.

18 Q What is your understanding of Dr. Goodrich's testimony  
19 around the "isRental" field and the "kind" field that are  
20 part of that purchase response?

21 A Well, he is claiming that those are the claimed usage  
22 rights.

23 Q And -- and do you agree or disagree with Dr. Goodrich  
24 that those "isRental" field, "kind" field meet the Court's  
25 construction of attached or treated as attached usage

1 rights?

2 A They do not meet the Court's claim construction.

3 Q Why not?

4 A Well, because, first of all -- I mean, there are two  
5 principal reasons.

6 First of all, they do not control usage. They do not  
7 control whether or not the user's device will play the movie  
8 or whether it will display the book. That's one.

9 And, two, they are not attached or treated as attached  
10 to the content. They come from separate places. One comes  
11 from the Apple server, and one comes from the Akamai  
12 servers.

13 Q What do the "kind" and "isRental" fields -- what --  
14 what kind of -- what is their function on the Apple system?

15 A They get used by the media library. And the media  
16 library is -- is a part of iTunes and iTunes on a device or  
17 a desktop, and it actually organizes the information. It  
18 organizes the list of titles, and it shows you what movies  
19 are available for you to play, what music is available, and  
20 so on.

21 And so they are used -- you can see up in this picture  
22 there are various tabs, there are various places you can  
23 click. You can click to see all of the available movies,  
24 all of the available music and the like.

25 The -- what gets displayed here depends on what's in



1 the media library database, and that comes from the isRental  
2 and movie, among other things.

3 Q Is that kind of display functionality the sort of  
4 control over usage that would satisfy the Court's  
5 construction of usage rights that are attached or treated as  
6 attached?

7 A No, it is not.

8 Q Now, were you in court yesterday when Mr. Fasoli was  
9 providing testimony in response to questions from  
10 Mr. Thomas, the ContentGuard lawyer, about the "media kind"  
11 field?

12 A I was, yes.

13 Q Now, do you recall if -- if Mr. Fasoli was asked  
14 whether the "media kind" field is related to the "kind"  
15 field?

16 A Yes, I do remember that.

17 Q What did Mr. Fasoli say about the "media kind" field  
18 and the "kind" field?

19 A The "media kind" field that comes from the -- there is  
20 the security information, the SINF. That "media kind"  
21 information is separate and independent of the "kind"  
22 information that comes from the purchase response.

23 Q So directing your attention to the slide that  
24 Dr. Goodrich prepared at the bottom here supporting his  
25 testimony that the "kind" field is the claimed usage right,

1 is there anything in that slide that points to the "media  
2 kind" field?

3 A No. This does not point to the "media kind" field in  
4 the SINF. That is different.

5 Q If a witness were to testify that the "media kind"  
6 field was the same as the "kind" field, would that testimony  
7 be accurate or inaccurate?

8 A No. If they are testifying that the "media kind" field  
9 in the SINF is the same as the "kind" field in the purchase  
10 response, those are separate and independent.

11 Q You mentioned the purchase response. And you've  
12 testified about that, and you now mentioned, Dr. Kelly, the  
13 SINF. Are the purchase response and the SINF the same or  
14 different?

15 A They are different. The SINF is part of the purchase  
16 response, but there is a "kind" field in the purchase  
17 response.

18 And this "media kind" field we're talking about is in  
19 the SINF, and it's not the same as this "kind" field that  
20 Dr. Goodrich pointed to.

21 Q Taking into account all of the things that you have  
22 described for us so far, Dr. Kelly, have you formed an  
23 opinion as to whether Apple's accused devices satisfy the  
24 usage rights requirement as set forth in all of  
25 ContentGuard's asserted patent claims?

1 A Yes, I have formed an opinion, and I do not believe  
2 that that requirement is met.

3 Q I would ask you now, Dr. Kelly, if you would, please,  
4 to summarize your opinions with regard to the Apple system  
5 as to each of the elements of a repository and as to the  
6 element of usage rights attached or treated as attached as  
7 found in all five of the ContentGuard claims.

8 A I believe that there is no repository in the accused  
9 devices. And remember, a repository has to have these three  
10 integrities in support of usage rights.

11 There is no physical integrity because untrusted  
12 systems access information on the device.

13 There is no behavioral integrity because software can  
14 be installed without a digital certificate.

15 And there's no communications integrity because devices  
16 communicate with untrusted devices.

17 So that -- any one of these would be enough, but, in  
18 fact, all three integrities are missing, so there is no  
19 repository.

20 And separately, in terms of the usage rights that are  
21 attached or treated as attached, what ContentGuard has  
22 pointed to as the usage rights do not control the use of the  
23 content. It's keys in the Apple system. It's the account  
24 key and the rental key.

25 And the -- and that the -- what they have pointed to

1 even is separate from the content. It is not attached or  
2 treated as attached.

3 MR. DAVE ANDERSON: Mr. Simmons, could you bring  
4 back up, please, Slide 4?

5 Q (By Mr. Dave Anderson) I want to reference, Dr. Kelly,  
6 your earlier testimony with regard to this slide. Do you  
7 have that in mind?

8 A I do.

9 Q Would you again describe for us the implications of  
10 even one claim element being -- being missing from an  
11 asserted patent claim?

12 A Well, as I said when I was talking about this, you need  
13 to meet every single claim limitation. You need to find  
14 every element in the accused device. If even one element is  
15 missing, you don't infringe the claim.

16 MR. DAVE ANDERSON: Now, Mr. Simmons, if we could  
17 go back to Slide 46.

18 Q (By Mr. Dave Anderson) Is it your testimony that  
19 ContentGuard has failed to prove all of the claim elements  
20 that are set forth here on Slide 46?

21 A Yes, that's correct.

22 Q If ContentGuard were to fail to prove even one of  
23 these, what would be the implications of that for your  
24 infringement analysis?

25 A Well, since these requirements are in all five of the

1 asserted claims, if even one of these was missing, then all  
2 five claims would fail. You could not show infringement of  
3 any of those five claims by the accused products.

4 Q With reference, Dr. Kelly, to your earlier testimony  
5 about secure containers and trusted systems, are you  
6 surprised that the Apple system exhibits none of these  
7 elements of ContentGuard's patent claims?

8 A No, not at all. Apple's basic approach -- Apple's  
9 approach to DRM is different. It's fundamentally different.

10 Q I'd like to direct your attention now, Dr. Kelly, to  
11 the '053 patent.

12 First of all, is it the case that your opinions so far  
13 apply to all five of the ContentGuard patents?

14 A Yes, that's correct.

15 Q Do the -- does the concept of a usage right appear here  
16 in the '053 patent?

17 A Yes, it does. I've highlighted it in the same yellow  
18 color here, and you can see there's three instances of usage  
19 right.

20 Q Does the idea of a repository play a part in the  
21 '053 patent claims?

22 A Yes, it does. And you can see it in -- in more -- a  
23 little bit above the middle of the -- of the claim.

24 Q Now, does the '053 patent have additional elements that  
25 are the subject of your testimony?

1 A Yes. It also has meta-rights.

2 Q Does the '053 patent assertion by ContentGuard against  
3 Apple fail for all of the reasons to which you've already  
4 testified?

5 A It does, yes.

6 Q Are there additional reasons -- are there -- an  
7 additional reason why the '053 patent fails?

8 A Yes.

9 Q What is that additional reason in -- in summary form?

10 A It's -- ContentGuard has not shown that Apple has  
11 meta-rights, and that's an additional requirement in the  
12 '053 patent.

13 Q As highlighted here in yellow, who are some of the  
14 named inventors of the '053 meta-rights patent?

15 A Two of them are Mai Nguyen and Eddie J. Chen.

16 MR. DAVE ANDERSON: Mr. Simmons, could we go to  
17 Page 2 of this exhibit, AX-0008?

18 Q (By Mr. Dave Anderson) Dr. Kelly, are you familiar with  
19 a prior art listing in a -- in a patent?

20 A I am, yes.

21 Q What is a prior art listing in a patent?

22 A It is a list of references, other documents, other  
23 patents that the Patent Examiner has considered when looking  
24 at the -- the patent to -- to determine whether it should be  
25 issued or not.

1 MR. DAVE ANDERSON: Mr. Simmons, could we call up  
2 the prior art reference to the Stefik '980 patent?

3 Q (By Mr. Dave Anderson) What -- what is it that's  
4 displayed here on the screen, Dr. Kelly?

5 A This is one of the entries in the -- in the list of --  
6 of references that were considered by the Examiner, and this  
7 particular one is -- is Patent Number 5,629,980, and it  
8 is -- the -- the inventors are Stefik, et al., so Stefik and  
9 some others.

10 MR. DAVE ANDERSON: Could we go back now,  
11 Mr. Simmons, to the slide deck?

12 Q (By Mr. Dave Anderson) At a high level, Dr. Kelly, what  
13 is the implication of a meta-right, as set forth in the  
14 '053 patent, for the analysis in this case?

15 A Well, this is -- this is adding additional features to  
16 the Stefik patents that we saw before.

17 In -- in the Stefik patents, there is a distributor who  
18 distributes usage rights to the end users. They're attached  
19 or treated as attached content, and they explain how to  
20 use -- what -- what the user can do with the content.

21 Here, we introduce the content provider, and this is  
22 the -- like the movie studios, for example. And they  
23 establish what rights the distributor has to -- to create  
24 rights that get sent on to the end user.

25 MR. DAVE ANDERSON: Your Honor, may I have one

1 moment?

2 THE COURT: You may.

3 (Pause in proceedings.)

4 Q (By Mr. Dave Anderson) Dr. Kelly, what -- what is it  
5 that distinguishes a meta-right from a usage right, as set  
6 forth in the '053 patent?

7 A The -- the meta-right is -- is distinct from a usage  
8 right, and it is used to -- to create usage rights.

9 Q Does the Apple system rely on meta-rights?

10 A No, it does not.

11 Q And you also mentioned, with reference to the  
12 '053 patent, that there's a concept of state variables. Do  
13 you -- do you have that in mind?

14 A Yes.

15 Q Does the Apple system use state variables?

16 A Well, not in the way that's set forth in -- in the  
17 '053 patent.

18 Q In your opinion, Dr. Kelly, does the Apple system  
19 infringe the '053 patent?

20 A It does not.

21 Q Were you here for the testimony of Dr. Martin?

22 A I was, yes.

23 Q Did you hear Dr. Martin testify about the legal  
24 contracts between the content providers and Apple?

25 A I did, indeed.



1 Q What's your understanding of Dr. Martin's testimony  
2 about the legal contracts between the content providers and  
3 Apple?

4 A I think he's relying on these for his meta-rights  
5 theory of infringement.

6 Q And is it, in your opinion, possible to rely upon legal  
7 contracts to satisfy the element of a meta-right as  
8 construed by Judge Gilstrap?

9 A No, I don't believe so.

10 Q Why is it that a legal contract is not a meta-right?

11 A Well, there's -- there's at least two reasons.

12 One is that this is a technical solution to a problem.  
13 That's -- that's the -- the intent of the claim. It's a --  
14 it's a technical solution to generating the meta-rights and  
15 the subsequent usage rights.

16 And the idea here is to prevent the inappropriate  
17 access to the content. So it's to prevent users from using  
18 content if they don't have the appropriate usage rights.

19 What a legal contract would do, it would not prevent  
20 that behavior. It may act afterwards as a recourse. It may  
21 be that -- that the content provider could perhaps sue the  
22 distributor for -- for not distributing it correctly, but  
23 that's after the fact.

24 Q Have you formed any opinion as to whether a legal  
25 contract is or is not a satisfactory or an appropriate way

1 for content transfers to be protected between the content  
2 providers and Apple?

3 A Well, as I just described, I mean, I don't think it  
4 meets -- it meets the requirements of the claim at all.

5 Q Do you have any opinion about whether that would meet  
6 Apple's business requirements? Is that a satisfactory way  
7 for Apple to organize its fares?

8 A To do it through the use of legal contracts? Oh, of  
9 course. Of course. That's a standard way of conducting  
10 business.

11 Q Is that the same way of conducting business that's set  
12 forth in the '053 patent?

13 A No, it's not.

14 Q What is the slide that is set forth in red here within  
15 Slide 51?

16 A Well, this is Dr. Martin's slide, and this says that  
17 the -- in this slide, it says that the intake servers  
18 deliver the title to the iTunes Store. And that's down at  
19 the bottom right. And this -- this would be the movie  
20 studios and so on. And he's showing them sending  
21 meta-rights to the iTunes Store.

22 Q Now, let me ask you about this component in the lower  
23 right-hand corner that shows a meta-right there at the icon  
24 that represents the content provider.

25 Do you see that there?

1 A I do.

2 Q What do you understand this slide is intended to  
3 suggest?

4 A Well, it -- I mean, I think it clearly implies that  
5 those meta-rights start at the movie or TV studios or book  
6 publishers, and they get sent to the iTunes Store.

7 Q Is that, in fact, how it works, with meta-rights being  
8 sent from the content providers to the Apple iTunes Store?

9 A No, it isn't.

10 Q Any doubt in your mind about that?

11 A None whatsoever.

12 Q Do you recall when Dr. Martin was asked questions about  
13 this slide that as you've described, Dr. Kelly, suggested a  
14 transfer of meta-rights from the content provider to the  
15 Apple iTunes Store?

16 A Yes, I remember this testimony.

17 Q What would you -- would you please read into the record  
18 the testimony that Dr. Martin gave on this point?

19 A Yes.

20 Question: Well, let me see if I can put it another  
21 way. You did not identify a single instance in which a  
22 meta-right was created by a studio and then given to Apple?  
23 Can you answer that with a simple yes or no, sir?

24 And his answer was: I agree, yes, sir.

25 Q So this slide from Dr. Martin shows a meta-right there.

1 According to Dr. Martin's own testimony, as you understand  
2 it, accurate or inaccurate?

3 A Well, it's inaccurate.

4 Q As Dr. Martin described it, how is it that the  
5 meta-rights function on the Apple system, who gives the  
6 meta-right and who receives the meta-right as you understand  
7 Dr. Martin to -- to have testified?

8 A Well, the way I understand his theory, it is actually  
9 Apple who is giving itself the meta-right.

10 Q Is that what's reflected on the right-hand side of this  
11 chart, Slide -- Slide 53?

12 A Yes, it is.

13 Q Now, in your opinion, Dr. Kelly, how is it that the  
14 meta-right concept functions under the '053 patent?

15 A Well, it would come from the content provider, and it  
16 would be sent from the content provider to the distributor.

17 Q Is there any meta-right either coming from a content  
18 provider or a meta-right being given by Apple to itself in  
19 any aspect of the Apple system?

20 A No, there is not.

21 Q Is this a separate and independent reason why the  
22 '053 patent has not been infringed?

23 A Yes, it is.

24 MR. DAVE ANDERSON: Your Honor, may I approach?

25 THE COURT: You may. Approach the bench.

1 (Bench conference.)

2 MR. DAVE ANDERSON: I owe the Court an apology --

3 THE REPORTER: I'm sorry. I can't hear.

4 MR. DAVE ANDERSON: Oh, sorry.

5 I owe the Court an apology. I miss --

6 overestimated --

7 THE REPORTER: I'm sorry. Hold on.

8 (Pause in proceedings.)

9 THE REPORTER: I'm sorry.

10 THE COURT: All right. Go ahead.

11 MR. DAVE ANDERSON: I wanted to alert the Court --

12 and I apologize for this, Your Honor. But my estimate of

13 how much time I would take was too large. The number of

14 slides I had was correct, but the amount of time I have

15 taken was --

16 THE COURT: No problem.

17 MR. DAVE ANDERSON: I just wanted to let the Court

18 know I'll be finishing up much more quickly than I

19 anticipated.

20 THE COURT: Okay. How much time do you have for

21 your cross, Mr. Thomas?

22 MR. THOMAS: 30 or 40 minutes, your Honor.

23 THE COURT: Okay. All right. We should be --

24 MR. THOMAS: I hope I get some leeway on that.

25 THE REPORTER: I'm sorry.

1 MR. THOMAS: I hope I get some leeway on that.  
2 That's my estimate. My best estimate, Your Honor.

3 THE COURT: I'm not holding anybody to these  
4 estimates. I'm just trying to get an idea for recess and  
5 lunch break and -- your time is your time. Use it as you  
6 see fit. I thank you for the heads-up.

7 MR. DAVE ANDERSON: Thank you, Your Honor.

8 THE COURT: All right.

9 (Bench conference concluded.)

10 THE COURT: All right. Let's continue.

11 Q (By Mr. Dave Anderson) Okay. Just one more question  
12 here, Dr. Kelly. As depicted here on Dr. Martin's slides,  
13 is this an accurate representation of the Apple system?

14 A No, it's not.

15 Q Now, I'd like to ask you to direct your attention to  
16 the slide that appears inside the red box here in Slide 54.  
17 What is depicted here in the red box inside Slide 54?

18 A Well, this is a slide that Dr. Goodrich used in his  
19 testimony, and it's his representation of the iTunes system.

20 Q Have you changed this slide in any way, or is this  
21 exactly as you understand Dr. Goodrich presented it in  
22 court?

23 A No. I made no changes to the slide. I obviously  
24 shrunk it a little bit to fit on my slide, but...

25 Q Do you see any problems or inaccuracies or mistakes

1 with the way that Dr. Goodrich has described the Apple  
2 system?

3 A Yes, I do.

4 Q Could you please describe for us the first of those  
5 mistakes?

6 A Well, the -- one problem here is that it doesn't show  
7 that the actual content does not come from the iTunes  
8 Stores. It comes from that separate Akamai servers.

9 Q Do you view this -- do you view this slide as intending  
10 to suggest that the content comes from the iTunes Store?

11 A Yes. I -- I believe that's what it's showing.

12 Q Where is it on this slide that you see Dr. Goodrich  
13 suggesting that the content is coming from the iTunes Store?

14 A Well, in the -- in the middle of the iTunes Store box,  
15 there is that -- something that looks like the movie. And  
16 it's got that lock on it, and it's right there.

17 Q Now, directing your attention to now the -- the lock  
18 that appears next to the arrows between the customer and the  
19 iTunes Store, do you see that lock?

20 A I do.

21 Q When content is sent to the user, is the content sent  
22 in a locked or secure channel under the Apple system?

23 A In the Akamai system, the content is sent over an HTTP,  
24 a standard connection. There is no -- that -- that is not a  
25 secure channel.

1 Q Is the -- if one were to understand this lock to  
2 represent a secure communications channel, would this slide  
3 be accurate or inaccurate?

4 A Well, it would not be accurate with respect to content,  
5 if that's what this lock means.

6 Q Now, when the -- when the keys under the Apple system  
7 come from the iTunes Store, are those sent on a secure or  
8 unsecure channel?

9 A Those are sent on a secure channel.

10 Q So in -- in putting both the content -- well, in  
11 putting the content inside the iTunes Store with the lock  
12 next to it and putting the lock down here in the channel, if  
13 that were taken as a representation that the content comes  
14 over a locked or secure channel, would that be accurate or  
15 inaccurate?

16 A It would be inaccurate.

17 Q Now, do you also see a little box in there that -- that  
18 says "usage rights"?

19 A Yes, I do.

20 Q Now, with reference to your previous testimony,  
21 Dr. Kelly, what is it that Dr. Goodrich has pointed to as --  
22 as the alleged usage rights?

23 A The -- the "kind" field and the "isRental" field in the  
24 purchase response.

25 Q Now, Dr. Goodrich testified, to your understanding,



1 that in order for something to be a usage right, it must  
2 control usage, or words to that effect?

3 A Correct.

4 Q What controls usage in the Apple system?

5 A It is the -- the account key or the rental key.

6 Q Where here on the slide has Dr. Goodrich provided some  
7 sort of a pictorial representation of the -- of the keys in  
8 the Apple system?

9 A Well, I don't believe he has.

10 Q So would you summarize for us the ways in which this  
11 slide presented by Dr. Goodrich are inaccurate or mistaken  
12 based upon the work that you performed in your understanding  
13 of the Apple system and how it actually works?

14 A Well, number one would be the fact that the content  
15 does not come from the iTunes Store. It comes from the  
16 Akamai servers.

17 Number two, the content does not travel on a secure  
18 channel from the Akamai store to the customer.

19 Three, the -- the usage rights that -- that -- the  
20 alleged usage rights that Dr. Goodrich has identified do not  
21 control the use of the content.

22 For at least those reasons.

23 MR. DAVE ANDERSON: Mr. Simmons, could we go to  
24 Slide 56?

25 Q (By Mr. Dave Anderson) Again, is the slide that appears

1 in the red box there Dr. Goodrich's slide, as supporting his  
2 testimony earlier in the trial?

3 A Yes, it is.

4 Q Were you present for that testimony, Dr. Kelly?

5 A I was.

6 Q Now, what's the title of this slide?

7 A How Content is Sent.

8 Q And do you see there in the slide and in the picture  
9 there's one of the -- one of the boxes that represents an  
10 Akamai CDN?

11 Do you see that?

12 A I do.

13 Q Do you see the other grayed out but otherwise similar  
14 looking boxes?

15 A Yes, I do.

16 Q Now, did you understand -- did you hear Dr. Goodrich  
17 testify about the transfer of data over the Internet using  
18 routers and switches?

19 A Yes, I did.

20 Q Do you understand -- do you have an understanding as to  
21 what it is that Dr. Goodrich has represented with these  
22 grayed out boxes?

23 A Well, I think that's the -- the type of Internet router  
24 or switcher -- or switches, and sometimes that's referred to  
25 as "Internet plumbing." It's a -- it's a basic part of the

1 Internet.

2 Q Is Akamai -- is an Akamai -- is an Akamai server a part  
3 of the router and switch network that forms the Internet?

4 A No, it's not. It's a content delivery network. It's  
5 something separate.

6 Q Do you -- do you understand this slide to be suggesting  
7 that the Akamai server is the same as routers and switches  
8 on the Internet?

9 A Yes, I do.

10 Q Is that accurate?

11 A It is not accurate.

12 Q There was testimony earlier in this case, Dr. Kelly,  
13 about caching versus storage.

14 Do you recall that?

15 A I do.

16 Q Would you please distinguish for the jury and describe  
17 for the jury the relationship of these ideas of caching and  
18 storing?

19 A The -- in many -- in many situations in a -- in a  
20 computer system, you have information that's stored in -- in  
21 a memory somewhere. And in order to get rapid access to  
22 portions of that information that you maybe need more often,  
23 you can put it into a higher speed memory. And that's  
24 usually referred to as a "cache."

25 So it's either closer to you or it's -- it's a faster

1 memory. And so it is -- it is another layer of storage.

2 Q Do Akamai servers use both caches and storage?

3 A Yes, they do.

4 Q Now, did you understand that Dr. Goodrich was  
5 testifying that Akamai is not storage, that it's just a  
6 place where content is cached?

7 A Yes. That's what I think he was saying.

8 Q Is that accurate?

9 A That's my understanding of what he was saying.

10 Q Is that accurate or inaccurate?

11 A It is inaccurate.

12 Q Why is it inaccurate to say that Akamai is just caching  
13 and not also storage?

14 A Because it does also store. It has storage. It has  
15 parts of the system that are -- are called net storage, and  
16 it has other parts of the system that are closer to -- we  
17 call it the edges -- closer to the users, and those are --  
18 are caches.

19 Q In summary, sir, what is it that you see that's  
20 inaccurate about Dr. Goodrich's description of how content  
21 is sent as set forth here on his slide in the red box?

22 A It -- it suggests that the iTunes Store sends the  
23 content, and that's not accurate. And it suggests that the  
24 Akamai CDN is just a regular part of the Internet plumbing,  
25 be it a router or a switch. And that's also not accurate.

1 MR. DAVE ANDERSON: Mr. Simmons, could we pull up  
2 Plaintiff's Opening 22?

3 Q (By Mr. Dave Anderson) Do you see there, Dr. Kelly, at  
4 the top there, the phrase "play anytime anywhere"?

5 A I do.

6 Q Now, what do you understand "play anytime anywhere" to  
7 mean?

8 A Well, based on -- on -- on the testimony that I've  
9 heard here, it means that you can take your computer or your  
10 device anywhere you want to take it, and you do not need to  
11 have Internet service, and -- and you can play your content  
12 at anytime.

13 Q And is it a feature of the Apple secure container  
14 approach that you can take your content, and you can play it  
15 at times without Internet service?

16 A Yes, it is.

17 Q How does Apple achieve that kind of playback?

18 A Well, it's the same as -- as -- as the regular  
19 approach. If you have -- let's say it's a movie. If you  
20 want to play a movie on your device, you need to have the  
21 content there and you need to have the account key. And if  
22 you have the account key and you have the movie, you can  
23 play it.

24 Q Was the idea of anytime anywhere playback invented, to  
25 your understanding, by Dr. Stefik or anyone at ContentGuard?

1 A No, I don't believe it was.

2 Q Have you heard ContentGuard try to claim anytime  
3 anywhere playback as part of the actual patent claims  
4 asserted in this case?

5 A No, I have not.

6 Q Does the anytime anywhere concept in any way suggest  
7 that Apple uses ContentGuard's patents?

8 A No, it does not.

9 MR. DAVE ANDERSON: Mr. Simmons, could we bring up  
10 Slide 58?

11 Q (By Mr. Dave Anderson) Dr. Kelly, in summary, what is  
12 your opinion about whether Apple's accused products infringe  
13 or do not infringe the five patents asserted by ContentGuard  
14 in this case?

15 A Well, my opinion is that the Apple accused products do  
16 not infringe any of the five claims that have been asserted  
17 in this litigation.

18 MR. DAVE ANDERSON: Your Honor, may I have one  
19 moment?

20 THE COURT: You may.

21 (Pause in proceedings.)

22 MR. DAVE ANDERSON: Your Honor, I pass the  
23 witness.

24 THE COURT: All right. Cross-examination by the  
25 Plaintiff.

1 MR. THOMAS: Yes, Your Honor.

2 THE COURT: Proceed when you are ready,  
3 Mr. Thomas.

4 MR. THOMAS: Thank you, Your Honor.

5 CROSS-EXAMINATION

6 BY MR. THOMAS:

7 Q Good morning, Dr. Kelly.

8 A Good morning, Mr. Thomas.

9 Q We met, I believe, when I took your deposition out  
10 there in California.

11 Do you recall?

12 A I do, indeed.

13 Q It's good to see you again.

14 A Thank you.

15 Q I have some questions about your deck -- the slides  
16 that you were using.

17 MR. THOMAS: If I could please have up Slide 10.4.

18 Q (By Mr. Thomas) Do you recall explaining this slide,  
19 Dr. Kelly, to us?

20 A I do.

21 Q And you made a point of saying that it does not  
22 infringe if it's missing one element of what's required by  
23 the claim, right?

24 A Yes, that's correct.

25 Q But it's also true, isn't it, sir, that if something

1 has additional features beyond what's required by the claim,  
2 there is still infringement, right?

3 A If it meets all of the elements of the claim, there is  
4 infringement and -- and -- regardless of whether it has  
5 additional features. I would agree with that.

6 Q Okay. So, for example, here, although you've got a  
7 picture of a soccer ball on the left and it's got six-sided  
8 elements to it, if there was a ball that was made with  
9 elements -- patches, pieces of leather that only had four  
10 sides, it would still be made of leather, right?

11 A Absolutely.

12 Q And so it would still infringe this Claim 1, right?

13 A If it met all of the claim elements, then it would  
14 infringe.

15 Q And if it was made of a different color leather, other  
16 than the black and white that you're showing in this  
17 picture, it would still infringe, right?

18 A Correct.

19 Q And if it were -- this Claim 1, it doesn't say how the  
20 ball has to be stitched together, does it?

21 A It does not.

22 Q So it could be stitched together in any way at all and  
23 it would still infringe this Claim 1, right?

24 A Well, I mean, in general. So long as it meets the  
25 limitation of "stitched together" and the approaches are



1 reasonable -- I guess approach to actually -- achieves the  
2 stitching together, it would be fine, yes.

3 Q So it could be stitched together with a machine or by  
4 hand, and it would still be stitched together and meet this  
5 claim element, right?

6 A Yes, that's likely the case.

7 Q Or it could be stitched together with any number of  
8 different kinds of sewing machines, and it would still be  
9 stitched together, and it would still infringe this Claim 1,  
10 right?

11 A I think that's -- that's very likely.

12 Q And if it were filled with compressed air just a little  
13 bit, let's say it was half of what some other example of  
14 this invention might be inflated to, it would still infringe  
15 as long as it had some compressed air in there, right?

16 A Well, you know, the -- that's an interesting question.  
17 This says "filled with compressed air," and this is a good  
18 example of how that the Court might have told us what  
19 "filled with compressed air" means.

20 The Court might have said even a little is good, or the  
21 Court might have said filled to some pressure. And we would  
22 have applied that, then, in the analysis of the claim.

23 Q But here in your example, you didn't say "filled to  
24 10 PSI with compressed air," did you?

25 A I did not.

1 Q It just says "filled with compressed air." So as long  
2 as it has some compressed air in it, it meets that  
3 requirement, right?

4 A Well, no --

5 Q It doesn't --

6 A -- that -- I beg your pardon.

7 No. It would depend on the circumstances. That --  
8 that's the kind of precise analysis that you must do when  
9 you're looking to see whether claim elements are satisfied.

10 And the Court would help us. If this was a disputed  
11 term, the Court would help us and tell us how we should  
12 understand "filled with compressed air" to be. And then we  
13 would apply that -- that definition to the accused product  
14 and see if it was met or not.

15 Q But the way you've got this Claim 1 written in this  
16 example, it just says "filled with compressed air." It  
17 doesn't say filled with compressed air up to some amount,  
18 does it?

19 A Oh, you're absolutely right.

20 Q So the way you wrote this claim, you just said "filled  
21 with compressed air." You didn't put any other limitations  
22 on "filled," did you?

23 A I did not.

24 Q So as long as it were filled, there isn't any  
25 particular limit to which it must be filled in order to meet

1 the claim as you wrote it; isn't that correct?

2 A Well, no. What I'm saying is that if that was a  
3 disputed term, if "filled" was something that the parties  
4 needed to have the Court decide, the Court would tell the  
5 parties, "Filled with compressed air means the following,"  
6 and that is the standard.

7 That's how we would do the analysis. We wouldn't say,  
8 oh, any amount of compressed air is good enough.

9 Q That's not the way you wrote this example, though, is  
10 it, sir? You didn't give it a limit when you wrote this  
11 requirement of Claim 1.

12 A I --

13 Q You didn't put anything in there, did you?

14 A I did not.

15 Q So apparently you didn't think there was any dispute  
16 that needed to be reconciled when you wrote this claim, did  
17 you?

18 A I wasn't considering how the parties would approach  
19 this. But that's, in fact, what they would do. They would  
20 look at the claims, and they would determine whether or not  
21 there are parts of the claims that -- that need to have  
22 further explanation from the Court, and that would have  
23 happened, just like it happened in this case.

24 Q And you understand, sir, that when you are deciding  
25 infringement, it is improper to add additional things to

1 what the Court has already said the claim term means, right?

2 A You cannot add additional requirements, that is true.

3 Q You've got to apply just the words that the Court used  
4 to define the claim term and not additional requirements or  
5 elements, right?

6 A No additional requirements or elements.

7 Q Okay. If we could go to your Slide 10.12, please.

8 Do you see here, sir, where you were showing us the  
9 definition the Court gave us for a repository?

10 A Yes.

11 Q Now, you know, sir, that these integrities do not have  
12 to be applied at all times in order for a device to comprise  
13 and meet the Court's definition of repository. You know  
14 that, right?

15 A I would agree with that. The -- the integrities do not  
16 have to be maintained permanently.

17 Q They do not have to be applied at all times that the  
18 device is in use in order for that device to meet this claim  
19 requirement and definition as the Court has written it, do  
20 they?

21 A If what it is doing is not in support of usage rights,  
22 then -- then I would agree that there -- there may be -- it  
23 may well be possible to not have the three integrities.

24 Q So the three integrities don't need to exist if the  
25 device is not doing something that's in support of usage

1 rights for DRM-protected consent; you would agree?

2 A If it is doing -- it -- whatever it's doing needs to be  
3 in support of usage rights. And if what it's doing is not  
4 in support of usage rights, if it doesn't impact usage  
5 rights, then -- then these integrities may be relaxed.

6 Q In fact, they don't even have to be in existence if  
7 it's not in support of usage rights, do they?

8 A Well, that's an interesting question. If the -- if the  
9 behavioral integrity is -- as an example, if the behavioral  
10 integrity is removed, then that means you can install  
11 software on to the repository.

12 And that software -- not being very careful about what  
13 software you install on the repository is essential because  
14 that then will be what's running to enforce the usage  
15 rights.

16 Q You understand, sir, that Judge Gilstrap has ruled in  
17 this case that the integrities that are part of this  
18 definition do not need to be applied at all times in order  
19 to meet his definition for repository.

20 You understand that, right?

21 A That's correct.

22 MR. THOMAS: If I could go to Slide 10.14.

23 Q (By Mr. Thomas) Now, you gave this as an example of  
24 something that has physical integrity, right, sir?

25 A I did.

1 Q And the definition of physical integrity is on  
2 Slide 13.

3 MR. THOMAS: If we could go back to that.

4 Q (By Mr. Thomas) And it says: A trust -- preventing  
5 access to information in a repository by a non-trusted  
6 system, right?

7 A Yes.

8 Q A definition of physical integrity doesn't say how that  
9 preventing access has to be accomplished, does it?

10 A It does not.

11 Q So on the next slide, when you showed us this physical  
12 box, you weren't trying to suggest that the only way to  
13 apply physical integrity was by some physical contraption  
14 like what you're showing here? You weren't trying to show  
15 us that, were you?

16 A Well, I certainly didn't say that this is the only way  
17 to do it.

18 Q In fact, the Court's definition --

19 MR. THOMAS: If we could go back to 13.

20 Q (By Mr. Thomas) -- it doesn't have any limitation or  
21 restriction on how to accomplish physical integrity. The  
22 device has to prevent access to information in a repository  
23 by a non-trusted system. It doesn't say how that can be  
24 done, right?

25 A That's correct. What it's saying is what needs to

1 happen, preventing access to information.

2 Q And so any way, software, hardware, as long as it's  
3 preventing access to information in a repository by a  
4 non-trusted system, it would meet the Court's definition,  
5 right?

6 A Well, it's physical integrity. It seems to me that  
7 this is going to be a -- an obvious way to do it would be to  
8 use hardware, to be physical in the integrity. Is it  
9 possible to do it some other way? It may be.

10 Q Well, now, are you -- aren't you just adding something  
11 to the Court's definition there, sir? Because I don't see  
12 the word "physical hardware" in the Court's definition of  
13 physical integrity. Do you?

14 A No, it's not there.

15 Q It's not there. So when you were suggesting that one  
16 way to do it -- or the way you think it might be done is  
17 with some sort of physical box, that's not what the Court  
18 said, is it?

19 A No. The Court is not requiring that. I'm just saying  
20 that that is an obvious way to do it.

21 MR. THOMAS: If we could go to Slide 15.

22 Q (By Mr. Thomas) This definition of communications  
23 integrity, do you see that, sir?

24 A I do.

25 Q Now, you know that the device can do many other things.

1 It can communicate with other devices and still have  
2 communications integrity as long as it's still in the  
3 support of usage rights, right?

4 A I'm not sure I follow that question.

5 Q Communications integrity doesn't need to be applied at  
6 all times, does it, sir?

7 A That's correct.

8 Q And so a device that is a repository can have  
9 communications integrity if that device communicates with  
10 other machines for purposes other than supporting usage  
11 rights, right?

12 A If it does it in a way that -- what this says is it has  
13 to maintain -- communications integrity is one of them in  
14 support of usage rights.

15 And so that means that if there are some communications  
16 that have no impact on -- on the support of usage rights,  
17 the communications integrity is not required, whatever they  
18 may be. But any communication that is going to involve  
19 or -- or affect the support of usage rights must have  
20 communications integrity.

21 Q And that communication -- so what you mean, sir, is  
22 that a device can be a repository, and it can discuss -- it  
23 can communicate with other devices without communications  
24 integrity in some instances so long as it uses  
25 communications integrity when it's in support of usage



1 rights, correct?

2 A Well, that's not how I would characterize it. I -- I'm  
3 not ruling out the possibility that there could be  
4 communications that are not in support of usage rights. I  
5 haven't ruled that out. But I don't see what those would be  
6 either.

7 Communications -- the support of usage rights includes  
8 making sure that the content is not altered, making sure  
9 that the usage rights are not altered, making sure that  
10 something doesn't get into the system that would -- that  
11 would cause those usage rights to be corrupted in any way.

12 And that's not just a communication that's actually  
13 sending a piece of content or -- or sending a key; it is  
14 that anything that could somehow corrupt that system and  
15 therefore do something that was -- that -- that violated  
16 this support of usage rights.

17 Q Because in support of usage rights is with respect to  
18 DRM-protected content, right, sir?

19 A Well, it's usage rights of -- of the content that's in  
20 the system.

21 Q Content that's protected with digital rights management  
22 software, right, sir?

23 A I think the basic idea here is we're talking about a  
24 DRM system. So that would be the -- the type of system that  
25 does have DRM-protected content. But it may also have

1 DRM-free content in that same system.

2 Q I know, sir. But the "in support of usage rights" is  
3 with respect to usage rights for DRM-protected content,  
4 right?

5 A I think that's fair.

6 MR. THOMAS: If I could go to Slide 16, please.

7 Q (By Mr. Thomas) Do you see here, sir, where you were  
8 pointing to the definition of behavioral integrity?

9 Do you see that?

10 A I do.

11 Q And you see the definition says: Requiring software to  
12 include a digital certificate in order to be installed in  
13 the repository.

14 Do you see that?

15 A I do.

16 Q Now, sir, if I have -- hypothetical. If I have a  
17 package, a box, that has two items in it, you would say that  
18 that box includes both those items, wouldn't you?

19 A I probably would, yes.

20 Q But those two items don't have to be part of each  
21 other, do they?

22 A Well, if the only requirement is that the two of them  
23 are in the same box, they would not need to be part of each  
24 other.

25 Q The box can include two items, and those two items do

1 not need to be part of each other for the box to include  
2 both of them, do they?

3 A That's true.

4 Q And you know, sir, that in instances where the Court  
5 has not provided a specific definition for a word used in a  
6 claim, that the ordinary meaning, as people use them in  
7 ordinary, everyday life needs to apply when determining  
8 whether something is infringed, right?

9 A Correct, as -- as -- as one -- plain and ordinary  
10 meaning of -- of -- of the claims, that's correct.

11 Q And so one plain and ordinary meaning of "to include"  
12 would be to put them in the same box, although not to put  
13 them -- make them attached or together with one another,  
14 right?

15 A No, no, certainly not. This is requiring software to  
16 include a digital certificate. It doesn't say anything  
17 about putting software and a digital certificate in a box.

18 Q The claim -- the definition the Court gave us does not  
19 say that the digital certificate has to be part of the  
20 software, does it, sir?

21 A Well, that's -- that's certainly how I understand this.  
22 How can you -- how can software include a digital  
23 certificate if it's not part of the software?

24 Q You could put the software and a digital certificate in  
25 a box, and the box would include both of them, wouldn't it,

1 sir?

2 A Well, sure, the box would include both, but the  
3 software would not include the digital certificate.

4 Q The purpose of having the digital certificate is so  
5 that it can be installed in the repository, right, the  
6 software? That's what the Court said in this definition,  
7 correct?

8 A It says: Requiring software to include a digital  
9 certificate in order to be installed in the repository.

10 Q And the Court did not say that that digital certificate  
11 had to be part of that software in order to accomplish this  
12 purpose of allowing it to be installed in the repository.  
13 It didn't say that in this definition, did it?

14 A I disagree. I think it clearly says that the software  
15 must include a digital certificate, which means that the  
16 digital certificate must be part of the software.

17 Q You don't see the words "part of" in that definition,  
18 do you, sir?

19 A I don't.

20 MR. THOMAS: If I could go on to Slide 17.

21 Q (By Mr. Thomas) This usage rights definition, sir, you  
22 talked a lot about this.

23 Do you recall?

24 A I do.

25 Q And you said attached or treated as attached. You were

1 pointing us to that.

2 Do you recall?

3 A I do.

4 Q Now, you see, sir, where the Court's definition of  
5 usage rights says: Indications that are attached or treated  
6 as attached, and that indicates the manner in which the  
7 digital work may be used or distributed, as well as any  
8 conditions, right, sir?

9 A I do. Yes, I see that.

10 Q The Court says that there are indications that are  
11 attached or treated as attached to a digital work. The  
12 Court did not say that the manner of use had to be attached  
13 or treated as attached to the digital work. That's not what  
14 this definition says, is it?

15 A I'm not sure I got that question. Would you repeat it?

16 Q This definition does not say the manner of use must be  
17 attached or treated as attached to the digital work. It  
18 doesn't say that, does it?

19 A What this says is that the -- the -- the usage rights  
20 must indicate the manner of use. So it's an -- it's an  
21 indication of the manner of use.

22 Q All right. So the actual manner of use or the actual  
23 conditions need only be -- only indications of those manners  
24 of use and conditions are what has to be attached or treated  
25 as attached to the content, right?

1 A Let's be clear. The manner of use has to be attached,  
2 and any conditions on which the use or distribution is  
3 premised has to be attached.

4 Q Let's read this with me here, sir. It says:  
5 Indications that are attached or treated as attached.

6 Did I read that correctly?

7 A Correct.

8 Q Where does it say "manner of use that must be attached  
9 or treated as attached" in this definition?

10 A It's the -- it's the -- the usage rights here. The  
11 usage rights are indications that are attached or treated as  
12 attached.

13 And what do those indications do? They indicate the  
14 manner in which the work may be used or distributed, as well  
15 as they also indicate any conditions on which use or  
16 distribution is premised.

17 Q Would you agree with me, sir, that this definition  
18 talks about indications that are attached or treated as  
19 attached?

20 A Yes.

21 Q This does not say: Manners of use or conditions that  
22 are attached or treated as attached. That qualifier on the  
23 manner of use and the conditions does not exist in this  
24 definition, does it?

25 A I believe it does.

1 MR. THOMAS: If I could have Slide 18.

2 Q (By Mr. Thomas) Now, you see here, sir, you remember  
3 being asked some questions about this particular slide in  
4 your presentation?

5 A Yes, I do.

6 Q And you were pointing us to Figure 1 of the Stefik  
7 patents, and you were telling us how those figures applied.  
8 Do you recall that?

9 A I do, yes.

10 Q Now, you know that infringement is not measured by  
11 comparing the accused product to one of the figures in the  
12 patent?

13 You know that, right?

14 A That is correct.

15 Q The only way to determine infringement is by comparing  
16 the accused device to the words that the Court has given us  
17 for definitions and to the remaining words in the claims,  
18 right?

19 A That is correct, but it is helpful to look at other  
20 parts of the patent to -- to get some color to those words  
21 and -- and to help understand the -- the overall patent  
22 claims.

23 Q But you weren't trying to say that because Figure 1  
24 describes one example of Dr. Stefik's invention, if that  
25 example does not meet the same things that Apple does, that

1 avoids infringement somehow. You weren't trying to suggest  
2 that, were you?

3 A No, certainly not.

4 Q Because --

5 MR. THOMAS: If I could go back to 10.4.

6 Q (By Mr. Thomas) In your example here, we don't  
7 determine infringement by looking at this picture of the  
8 soccer ball, do we?

9 A That's correct.

10 Q We look at -- we determine infringement by looking at  
11 the words that are in the claim and only the words that are  
12 in the claim or the Court's definitions, correct?

13 A Correct. But we might look at this picture and say:  
14 Oh, well, that's clear, then, what "round" means.

15 Q Now, sir --

16 MR. THOMAS: If I could go back to Slide 18,  
17 please.

18 Q (By Mr. Thomas) Do you see here where it says: It is  
19 fundamental to the present invention that the usage rights  
20 are treated as part of the digital work?

21 Do you see that?

22 A I do.

23 Q Dr. Stefik did not say it is fundamental to the present  
24 invention that the usage rights are part of the digital  
25 work. He put in the word "treated as," didn't he?



1 A He did.

2 MR. THOMAS: If I could go to Slide 24.

3 Q (By Mr. Thomas) Now, sir, do you recall being asked  
4 some questions about what Dr. Smedley testified to about  
5 what he found in the code?

6 A Yes, I do.

7 Q Now, you didn't do anything to select the source code  
8 that Dr. Smedley reviewed, did you?

9 A No, I didn't.

10 Q So you're not sure what the process was by which the  
11 code that Dr. Smedley and his team reviewed was selected,  
12 right?

13 A You mean what code he decided to look at?

14 Q No. The process by which the code that he was -- that  
15 was made available to him and his team, how that code was  
16 selected. You're not aware of how that process was  
17 undertaken, correct?

18 MR. DAVE ANDERSON: Your Honor, I object and would  
19 request an opportunity to approach.

20 THE COURT: Approach the bench.

21 (Bench conference.)

22 THE COURT: All right, Mr. Anderson.

23 MR. DAVE ANDERSON: I did not object to the  
24 questions about Dr. Smedley's selection of source code,  
25 one --

1 THE REPORTER: I'm sorry. I'm having trouble  
2 hearing.

3 MR. DAVE ANDERSON: I did not object, Your Honor,  
4 to the questions about Dr. Smedley's selection of source  
5 code, one, but it sounded to me like Counsel now has crossed  
6 over into questions that are about the source code that was  
7 provided by Apple in discovery to Dr. Smedley, and I do  
8 object to those questions.

9 THE COURT: Are you saying it is a violation of  
10 the order in limine?

11 MR. DAVE ANDERSON: Yes, Your Honor.

12 THE COURT: Okay. That's overruled. I don't  
13 think it is. He's -- he's not crossed that line in my view,  
14 so the objection is overruled.

15 MR. DAVE ANDERSON: Should I, Your Honor -- when  
16 should I renew my objection? Should I renew my objection or  
17 just stand on this point now? How should I proceed?

18 MR. THOMAS: Your Honor, I might be able to help.  
19 If he tells me he doesn't have any understanding of how the  
20 source code was selected, I'm moving on.

21 THE COURT: Well, if you need to reurge your  
22 objection, reurge it. If you would like to save some time  
23 from coming up here to the bench, you can just tell me it is  
24 the same objection, and I'll rule on it if and when it comes  
25 up again. But I can't give you a running objection to this.

1 MR. DAVE ANDERSON: Understood.

2 THE COURT: This is an instance-by-instance  
3 situation. And in this case, I don't believe Counsel's  
4 questions violate the order in limine.

5 MR. BRYAN ANDERSON: Thank you, your Honor.

6 THE COURT: All right.

7 (Bench conference concluded.)

8 Q (By Mr. Thomas) My question was, Dr. Kelly, you're not  
9 aware of how the source code that was provided to  
10 Dr. Smedley and his team for them to review was selected,  
11 are you?

12 A I'm not.

13 MR. THOMAS: If I could go to Slide 35.

14 Q (By Mr. Thomas) Now, you recall being asked some  
15 questions and giving some answers about the highlighted  
16 section that you pulled out of the '053 patent?

17 Do you recall that?

18 A I do.

19 Q And this is not one of Dr. Stefik's patents, right?  
20 This is the meta-rights patent.

21 A Correct.

22 Q So Dr. Stefik wasn't writing these words, correct?

23 A Correct.

24 Q Now, do you see here, sir, where you highlighted  
25 "existing computer environments such as PCs and workstations

1 equipped with popular operating systems, Windows, Linux, and  
2 UNIX"?

3 None of those are the Apple operating systems, are  
4 they?

5 A Correct.

6 Q So the operating system for the iPhone was not  
7 identified here as being one of those that are not trusted  
8 systems, was it?

9 A Well, it didn't exist at the time. It was not included  
10 here.

11 Q Precisely.

12 So the iPad operating system was also not included in  
13 this statement because it didn't exist at the time the  
14 statement was made either, right?

15 A Correct.

16 Q And the Macintosh operating system was not identified  
17 in this statement, but it did exist at the time, didn't it?

18 A Correct.

19 Q And you don't know what the authors had in mind when  
20 they identified what they might have thought any other  
21 operating systems that applied to this statement were, do  
22 you?

23 A I'm not sure I follow that question.

24 Q You don't -- you have no reason to believe that when  
25 the authors of this document wrote it, they had the

1 Macintosh operating system in mind, do you?

2 A Well, obviously, I can't say. I can't read their  
3 minds. What they said here was "equipped with popular  
4 operating systems, e.g., Windows, Linux, and UNIX."

5 And these are just examples. There were other popular  
6 operating systems, including the Mac. I don't know if they  
7 had that in mind when they wrote these words or not.

8 Q So you have no reason to believe one way or another  
9 whether they intended to include any of the Apple operating  
10 systems in this statement, do you?

11 A Well, it would fall within the -- the Mac operating  
12 system would certainly fall within -- could have been  
13 another example here of existing computer environments with  
14 popular operating systems and rendering applications, such  
15 as browsers. Certainly would meet that. Whether they had  
16 that in mind, of course, I cannot say.

17 Q You know, all of these inventors on the '053 patent  
18 were deposed by Apple in this case.

19 Do you know that?

20 A I do.

21 Q Do you know whether any of them were asked whether or  
22 not they intended this statement to apply to the Macintosh  
23 operating system in any of those definitions?

24 A You know, I've read the depositions, but I don't recall  
25 whether that question was asked or not.

1 Q But you certainly didn't show us where any of these  
2 inventors in their testimony said they were referring to the  
3 Macintosh operating system here, did you?

4 A Sure, that's absolutely true.

5 THE COURT: Dr. Kelly, I'm going to remind you to  
6 speak up again. You have --

7 THE WITNESS: Oh, sorry, your Honor.

8 THE COURT: You have a bad habit of trailing off  
9 at the end of your answers, and it's important for the jury  
10 to hear the complete answer.

11 THE WITNESS: Thank you.

12 THE COURT: All right. Continue, Counsel.

13 MR. THOMAS: If I could go to Slide 36, please.

14 Q (By Mr. Thomas) Do you recall being asked some  
15 questions about how Cloakware is used in the Apple system,  
16 sir?

17 A Indeed.

18 Q Okay. Now, you said Cloakware is not physical  
19 integrity, right?

20 A Correct.

21 Q But you know that physical integrity doesn't have to  
22 necessarily be employed with physical devices, according to  
23 the Court's definition, right?

24 A Well, as I said, there may be ways to do it without  
25 actual physical means. I don't know what those are.

1 Q But you know that the Court's definition of physical  
2 integrity did not require any hardware -- specific hardware,  
3 did it?

4 A It does not require specific hardware. I would agree  
5 with that.

6 Q Okay. And it could include software, right? It just  
7 says "preventing access." Doesn't say how, right?

8 A It does not say how. I agree with that. I don't know  
9 how you would do it in software, but -- but if it -- if it  
10 can be done that way and meet the requirements, then that  
11 would be good enough.

12 Q Do you think encrypting a content file, sir, prevents  
13 somebody from accessing the unencrypted clear portion of  
14 that movie?

15 A Well -- so it doesn't prevent access to the  
16 information. It may prevent or limit the access to certain  
17 varieties of the information -- for example, clear text  
18 versus -- versus encrypted --

19 Q So you --

20 A -- but you can still access the information, and that's  
21 what -- what you need to prevent with physical integrity.

22 Q So you think it's the same thing to access something  
23 that's encrypted as to access something that's not  
24 encrypted?

25 A No, it's not the same thing, but they are both accesses

1 to the information.

2 Q Don't you think, sir, that preventing access means  
3 preventing access to something that can be used by whoever  
4 is getting access to it?

5 A Well, you know, I would -- I would say that -- that  
6 those -- those words don't appear here. This is preventing  
7 access to information in a repository by a non-trusted  
8 system. It doesn't say preventing access to information in  
9 clear form or -- or it says -- it doesn't say preventing  
10 access to information unless it's encrypted.

11 Q Do you think, sir, that the purpose of encryption is to  
12 prevent unauthorized people from getting access to the movie  
13 in a way that they could watch it, right?

14 A It is -- the -- one of the purposes of encryption  
15 certainly is to -- is to control usage rights so that if you  
16 don't have the key, you can't watch the movie. But that's  
17 only one type of access.

18 MR. THOMAS: If I could have Slide 37, please.

19 Q (By Mr. Thomas) Do you recall being asked some  
20 questions here, sir -- and I think the questions went along  
21 the lines of no digital certificate in the movie, and then  
22 you said and that movie may include a virus, which could  
23 possibly infect John's device.

24 You said that, right?

25 A Correct, yes.



1 Q Now, you were here for the testimony of Mr. Fasoli  
2 yesterday, right?

3 A I was.

4 Q And you know Mr. Fasoli has been in charge of one part  
5 of Apple's DRM program, the FairPlay part, since 2005?

6 A That's correct.

7 Q Ten years, right?

8 A Right.

9 Q And do you recall what he said when I asked him if  
10 there -- how many times any virus had ever been infected on  
11 a device by traveling along with a piece of content from the  
12 Akamai servers?

13 A I think you were asking him about a movie specifically,  
14 but I -- I do remember that question.

15 Q And he said never, right?

16 A Correct. With respect to movies, that's correct.

17 Q And he said never with respect to content, didn't he?

18 A I'm not sure that he said that.

19 Q Do you think he might have been answering my question  
20 in context of was there ever any content that Apple sold  
21 that was -- had an infected virus?

22 A I'm -- I'm not sure. What I can tell you is that there  
23 have been PDFs that have JavaScript in them that have  
24 infected devices. So maybe your question excluded that  
25 possibility. But this has happened with Apple devices.

1 Q No, sir. I was asking what Mr. Fasoli said.

2 And Mr. Fasoli said he was never aware, in ten years,  
3 of anybody ever putting a virus on a movie file. Let's go  
4 with that.

5 A That came from -- from the Akamai servers. I think  
6 that's -- that's true. That's what he said.

7 Q And he said nobody at Apple had ever told him that they  
8 were aware of that ever happening in the last ten years,  
9 right?

10 A That's correct.

11 Q Nonetheless, you think that's a risk, and that's  
12 something that would deprive the Akamai servers and deprive  
13 the system -- that is, the Apple system -- of meeting the  
14 requirement for having a digital certificate?

15 A Yes. It has happened. It may not have happened yet  
16 with a movie that is -- that's on an Akamai server, but this  
17 kind of threat has actually occurred with Apple devices  
18 and -- and every day additional attacks are being made all  
19 over cyberspace.

20 THE COURT: All right. We're going to stop for  
21 lunch at this point.

22 Ladies and gentlemen, if you will bring your jury  
23 notebooks with you to the jury room and leave them on the  
24 table there. I'd like to start back as soon after 1:00  
25 o'clock as possible. So if you will reassemble with that in

1 mind.

2 Don't discuss the case among yourselves or with  
3 anyone. Thankfully, it's not raining today, so we're going  
4 to let you be on your own for lunch, and we'll see you about  
5 1:00 o'clock.

6 With those instructions, you're excused for lunch  
7 at this time.

8 COURT SECURITY OFFICER: All rise for the jury.

9 (Jury out.)

10 THE COURT: The Court stands in recess.

11 (Lunch recess.)

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CERTIFICATION

I HEREBY CERTIFY that the foregoing is a correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability.

/S/Christine L. Bickham  
CHRISTINE L. BICKHAM, RMR, CRR  
Deputy Official Court Reporter  
State of Texas No. 4939  
Expiration Date: 12/31/15

11/18/15